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Rehabilitation Services in Tasmania:
current situation and future plans

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EXECUTIVE SUMMARY

This rehabilitation services plan is a joint initiative of the Acute Health Services Group and the Community Health Services Group of the Tasmanian Department of Human Services. It has been developed taking account of, and at the same time informing, the Tasmanian Clinical Service Plan and the Primary Health Services Plan, both of which are currently under development.

The rehabilitation services plan that is set out in Section 5 (page 26) has been developed after a needs analysis (Section 3) and a rehabilitation services review. Key findings from the review are summarised in Section 4. Underpinning the needs analysis, the review and the plan is the conceptual framework set out in Section 2. The key to this framework is the clear identification of three levels of care (acute, sub-acute and non-acute) and the definition of different types of care.

MEDICAL REHABILITATION in its broadest sense is part of all patient care. It is the function of every practicing doctor and involves the prevention, assessment, management and medical supervision of a person with disability until that person has attained an adequate and appropriate level of performance.

REHABILITATION MEDICINE is a subset of medical rehabilitation and is that part of the science of medicine involved with the prevention and reduction of disability and handicap arising from impairments; and the management of disability from a physical, psychosocial and vocational viewpoint. Rehabilitation medicine is the subject of this review and plan.

Summary of review findings

The review has identified that there is a significant shortage of rehabilitation services in Tasmania. Further, as the population ages over the next decade, the need for rehabilitation will significantly increase. Key findings in relation to the need for rehabilitation include:

- Relative to national standards, Tasmania is under-supplied with rehabilitation beds with the current shortfall estimated at around 50-60 beds.
- Medical and allied health staffing levels fall well short of recommended standards.
- With only 47-49 designated rehabilitation beds in Tasmanian public hospitals, at least 70 other beds are being used by patients formally classified as undergoing rehabilitation. Further, it is estimated that up to 195 beds, including up to 100 acute beds, are being used by patients requiring rehabilitation or restorative care.
- The lack of ambulatory rehabilitation services in the North and North West regions limits alternative options to provide rehabilitation to those who require it.
- The projected 45% increase in the population aged 70+ from 2003 to 2018 has major implications for rehabilitation and other sub-acute care needs.
- Demand for inpatient rehabilitation services in Tasmanian public hospitals is projected to more than double between 2004-05 and 2016, with around 150 beds being needed at that time *if current patterns of use are maintained*.
- Current outcome data suggest that shortages of allied health staff and alternative rehabilitation service options may be having a negative impact on outcomes and/or length of stay.

The review has identified a range of issues that need to be addressed as part of the development of a network of rehabilitation services that will meet the needs of Tasmanians over the next decade. These are set out in Section 4 and are briefly discussed below.

Perhaps the most important issue to be addressed is the status of rehabilitation within Tasmania's health system. Consultations have highlighted the relatively poor status accorded rehabilitation relative to acute care services in Tasmania, in spite of the needs arising from population ageing

and increasing frailty. The need for strong clinical leadership to raise the profile of rehabilitation services and drive service development is evident.

There is, at present, a lack of clarity around the rehabilitation role. There are apparent overlaps and some blurring of service roles between rehabilitation services and other services including stroke, geriatric management, restorative care and maintenance therapy.

In spite of some changes that have been made in recent years, the formal organisational structure presents some barriers to the development and delivery of an effective system of rehabilitation services. Not least is the separate management of hospital and primary health sectors, which runs counter to the integrated model of delivery required to support an effective rehabilitation service. In this context, ongoing planning and cooperation between the Acute Health Services Group and the Community Health Services Group of the Department will be critical.

This review has highlighted a need to strengthen overall clinical direction for rehabilitation services, both Statewide and at Regional level, with the capacity for program planning and management across both hospital and community settings.

A range of specific issues has also been identified. These include clinical staffing levels, referral and assessment protocols, admission, discharge and case management, specialist rehabilitation needs, orthotic and prosthetic services and outcomes measurement.

Finally, the review has highlighted three main infrastructure issues. These relate to improved facilities, equipment and transport and are summarised in Section 4.11 (page 24).

The recommended future of rehabilitation services in Tasmania

Target group

- People who experience a new acute event requiring hospitalisation and who cannot go home without a return of, or improvement in, function. Examples include patients who have had a stroke, fractured NOF, joint replacement, limb amputation or spinal cord damage.
- People whose episode of care from that acute event is continued as an outpatient and who will benefit from ongoing input from clinicians for continuing therapy and review of progress, with occasional new interventions. Examples include people with stroke who benefit from speech therapy, people whose spasticity benefits from botulinum toxin injection, people who require equipment and aids for independent living.
- People who are living with a congenital or acquired disability, or chronic illness who have intercurrent acute events – such as swallowing difficulties, reactions to medications, urinary tract infections, pressure sores, fractures, increases in challenging behaviour – who need outpatient clinicians for assessment and immediate management of that episode and
- People who are ageing and experiencing the functional losses associated with multiple chronic diseases. This group do not need hospitalisation but would benefit from outpatient clinicians – possibly single practitioners, but more likely more than one practitioner, in a coordinated and purposeful program.

The age of the person is not a criterion for rehabilitation, nor is it the distinction between rehabilitation and GEM care. A person is eligible for rehabilitation if:

- They have an impairment, disability or handicap and
- They have the capacity to benefit from multidisciplinary therapy in the reasonable expectation that they will achieve functional gain.

Role of rehabilitation services

It follows that the role of a rehabilitation service, both inpatient and community, is to:

- Undertake an individualised and documented initial and periodic multidisciplinary assessment of functional ability by use of a recognised functional assessment measure.
- Develop and implement an individualised multidisciplinary rehabilitation plan that includes negotiated rehabilitation goals and indicative time frames.
- Measure outcomes at discharge and make arrangements to meet any ongoing support needs.

Rehabilitation is critical to the efficient delivery of acute care and needs to be complemented by other sub-acute and non-acute services.

Proposed Strategy

The proposed strategy has nine key elements:

1. Formalise the establishment of the Tasmanian Rehabilitation Network to enhance the status of rehabilitation and provide statewide policy direction, service planning and training.
2. Re-balance the investment in inpatient services by increasing provision for rehabilitation and other sub-acute care.
3. Establish integrated rehabilitation programs and organisational structures within each region, linking acute care, sub-acute care and community rehabilitation programs.
4. Promote an integrated, patient-focussed model of service delivery that extends across settings and includes patient identification/referral, assessment, care planning, case management and discharge planning.
5. Change current utilisation patterns to make more effective use of available rehabilitation resources and improve patient outcomes.
6. Align rehabilitation service development and specialisation with relevant acute clinical service planning and delivery
7. Develop and implement a rehabilitation workforce strategy including:
 - leadership and team-building
 - recruitment/retention
 - training
 - making more efficient use of available resources
 - investment
8. Support the development of specialist rehabilitation programs:
 - brain injury
 - spinal
 - amputee
9. Address infrastructure deficiencies that restrict service capacity and effectiveness:
 - facilities
 - equipment
 - transport.

Strategic investment priorities

The most immediate investment priorities are summarised below. Future investment priorities can then be considered once these more immediate requirements are in place.

Regional development

The two regions for priority development are the North and the North West. The South, while under-resourced by Australian standards, is demonstrably better resourced than the other two regions.

North

The immediate priorities for the North are to:

- build the inpatient unit back up to 32 beds.
- increase the intensity of allied health therapy by increasing the number of allied health staff working in the rehabilitation unit.
- develop step-down facilities. These should include a community rehabilitation service as well as GEM and transition care beds and transition care packages.

North West

The immediate priorities for the North West are to:

- improve medical coverage, including access to consultation-liaison rehabilitation medicine services provided from Launceston or Hobart
- develop step-down facilities. These should include a community rehabilitation service as well as transition care beds and transition care packages. The location of such services at the Mersey Hospital should be considered as part of the clinical services plan currently under development.

Community rehabilitation

The CRU in Hobart plays an important role in the South and access to a similar service is required in the North and North West. While the budget for such services would be held by primary care, these services need to be closely integrated with the inpatient rehabilitation units. Consideration should be given to whether it may be better to employ community rehabilitation allied health staff through the hospital, as is the case at present with some community allied health positions in the North.

Workforce development

The development and implementation of a rehabilitation workforce strategy is critical to the future of rehabilitation in Tasmania. The formal recognition and support of the Tasmanian Rehabilitation Network is the first step and this can be achieved without additional resources. That network should be given a mandate to provide advice to the Department with respect to:

- Leadership and team-building
- Recruitment/retention
- Training
- Efficient use of available resources

The final section of the plan (Section 5.6, page 34) summarises the resource implications. While some recommendations require major investment, a considerable amount can be achieved within existing resources.

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The provision of a network of high quality rehabilitation services is critical to the future of both primary and acute care in Tasmania. The lack of appropriate rehabilitation is a false economy in any health system. Patients who require rehabilitation but do not receive it do not simply disappear. Rather, they are treated for unnecessarily long periods in acute beds, with many not reaching their potential to live independently and requiring ongoing maintenance care. A high quality rehabilitation service is in the interests of both the health system and the patients it treats.

1 BACKGROUND AND CONTEXT TO THE REVIEW

1.1 Terms of Reference

The terms of reference for the review were to:

- Evaluate the 2003 Statewide Strategic Plan for Rehabilitation Services in Tasmania to determine its currency and validity in relation to contemporary practice and the provision of integrated rehabilitation services across the inpatient, outpatient and community settings.
- If required, propose changes to the Statewide Strategic Plan for Rehabilitation Services and incorporate the proposed changes into a revised version of the Plan.
- Assess existing service systems, including the newly established Pathways Home programs focused on rehabilitation services, to identify gaps.
- Identify what changes can be made to current service systems within existing resources to enable a staged approach to the development of an integrated approach to the provision of rehabilitation services.
- Identify service system changes where implementation would be dependent upon the provision of additional human, physical and/or financial resources.

1.2 Context

As noted in the project brief, the effectiveness of rehabilitation is highly dependent on the nature of the relationship between inpatient, outpatient and community services. Effective integration across the continuum of care ensures that people are appropriately treated within the tertiary care sector and are able to return to their communities as soon as possible, and to work in partnership with their health care professionals to optimise their health and well being within those communities. Challenges in Tasmania identified by the Department of Health and Human Services include:

- Increasing demand for rehabilitation services as a result of the ageing population and greater survival rates for people with complex needs.
- Increasing community expectations for a responsive and quality rehabilitation service.
- Pressure on the number of available hospital beds as a consequence of significant gaps in community based service provision. This issue has prevented patients in the acute care sector from returning to their community with appropriate support.
- Poor coordination and linkages vital to integrated care across the continuum of inpatient, outpatient and community
- Rehabilitation services not fully developed across the continuum of care in each region.
- Variances in access to services depending upon the funding status of the person and the region of domicile.

In determining how best to assess and address these challenges, the former Hospital and Ambulance Services and Community, Population and Rural Health Divisions worked together to develop a Statewide Strategic Plan for Rehabilitation Services. The plan was released in 2003, with its goals and objectives being supported by key stakeholders.

Progress to date in implementing the plan has resulted in:

- The establishment of the Southern Community Rehabilitation Unit (CRU) following the cessation of the contract with Calvary Healthcare for the management of adult community rehabilitation services in Southern Tasmania.

- Allocation of Pathways Home funding to enable a range of initiatives aimed at improving rehabilitation services; improving data collection and reporting methods and increasing services that focus on clients with complex needs. Pathways Home funding has enabled the appointment of two rehabilitation coordinators one based at North West Regional Hospital and the other at the Launceston General Hospital. Both rehabilitation coordinator positions are focusing on capacity building of services within their respective regions and target clients who have a high need for specialist multidisciplinary assessment, treatment and advice for their rehabilitation requirements in the subacute and re-establishment phase with a particular emphasis on the needs of the frail elderly.
- The Royal Hobart Hospital commissioned a review to develop a new model of service delivery of inpatient geriatric and rehabilitation services, the majority of which have been implemented.

Whilst these developments supported the directions contained in the Statewide Strategic Plan for Rehabilitation Services, each occurred in isolation, thus contributing to a perceived lack of a strategic and coordinated approach towards the integration of rehabilitation services across the State. This review was commissioned to address this issue.

At the same time, the Department had commissioned two other major planning exercises, both relevant to the ultimate setting for the delivery of rehabilitation services in Tasmania.

The **Clinical Service Plan** for acute public hospitals will be the primary strategic document for the delivery of acute hospital services to the Tasmanian community, providing clear directions for the provision of clinical services over the next decade. It builds upon a number of previous strategic planning documents including the Richardson Report and also considers the views of stakeholders both within and external to acute health services.

The **Primary Health Services Plan** is being undertaken by the Community Health Services Group. The plan aims to ensure:

- a sustainable primary health services system into the future: reflecting Tasmania's health workforce and population.
- quality services into the future: safe and reliable.
- access to services: improving the interfaces between the major hospitals and primary health services and between GPs and other primary health and community care services.

The rehabilitation services plan is a joint responsibility of the Acute Health Services Group and the Community Health Services Group and has been developed taking account of and, at the same time, informing the above planning processes.

1.3 How the review was undertaken

The review involved a number of activities including:

- An initial meeting with the Project Steering Committee to develop a shared understanding of the issues
- Collation and review of relevant background information
- Development of a pro-forma on current services and issues that was subsequently completed by representatives of the three hospitals and the Community Rehabilitation Unit (CRU) in the south
- An internal review of the 2003 *'Statewide Strategic Plan for Rehabilitation Services in Tasmania'*
- A statewide consultation program that involved on-site consultations over a one week period in Hobart, Launceston, Mersey and Burnie

- An analysis of current and projected demand for services and identification of possible options for change
- Preparation of a draft revised Statewide Strategic Plan
- Consultation with members of the Project Steering Committee and other key stakeholders to discuss proposed changes and implementation priorities
- Finalisation of this revised plan.

2 CONCEPTUAL FRAMEWORK AND DEFINITIONS

2.1 Conceptual framework for this plan

Figure 1 shows the conceptual framework for this plan. It conceptualises care as being of three broad types. Acute care is driven by the patient's diagnosis. For this reason, the Diagnosis Related Group (DRG) classification is used to describe this type of care. Acute care is not addressed in this plan, except in relation to the interface with rehabilitation services. However, for the sake of completeness, Figure 1 shows where Acute Care of the Elderly (ACE) fits within this conceptual framework.

The term subacute care was coined in 1992 to describe "care which is provided for a person who requires health services but whose principal medical diagnosis (modified for factors such as age and procedures) is not adequate in explaining the need for, or the cost of, the services that s/he receives".¹ As such, subacute care is not appropriately classified by DRG.²

In subacute care the predominant goal is enhancement of a patient's quality of life and/or improvement in his or her functional status. Two streams of subacute care are particularly relevant to this plan – rehabilitation and GEM.

Figure 1 Conceptual framework that underpins this plan

Type of care	Streams		
Acute Care			
Care needs and treatment is driven by the patient's medical diagnosis	Medicine Principal diagnosis is the cost driver	Surgery Principal diagnosis is the cost driver	Acute Care of the Elderly (ACE) Multiple diagnoses drive costs
Subacute Care			
Care needs and treatment is driven primarily by the patient's functional status, not the underlying medical diagnosis Therapy is the dominant intervention, the goal of which is functional improvement	Rehabilitation	Geriatric Evaluation and Management (GEM) (sometimes also called slow stream rehabilitation)	Psychogeriatric Including dementia care
Non-Acute Care			
The predominant goal is maintenance of a patient's current health and functional status. Therapy is provided to maintain current functional abilities. Some slow improvement may be achieved but, if so, it is a bonus and not the predominant goal of care.	Maintenance Care (also called Interim Care)	Transition Care (joint Commonwealth State funded program)	

Note: Palliative care is also classified as sub-acute care but is excluded here as it is out of scope for this plan

Non-acute care aims to maintain a patient's health and functional status. The new national Transition Care Program has been included within this type of care.

This is an adult rehabilitation plan but other types of subacute and non-acute care are also considered. Accordingly, definitions of the other types of subacute and non-acute care are included in Attachment 1.

¹ Eagar K. and Innes K. (1992) *Creating A Common Language: The Production and Use of Patient Data in Australia*. Commonwealth Department of Health, Housing and Community Services, Canberra

² NSW, and the private rehabilitation sector nationally, use the AN-SNAP classification instead of the DRG system. Victoria uses the CRAFT classification for rehabilitation and does not classify GEM.

2.2 A definition of rehabilitation

The Australasian Faculty of Rehabilitation Medicine (AFRM) definitions are as follows:

REHABILITATION MEDICINE is that part of the science of medicine involved with the prevention and reduction of disability and handicap arising from impairments; and the management of disability from a physical, psychosocial and vocational viewpoint. This specialty was recognised as a Principal Specialty by the National Specialist Qualification Advisory Committee of the Health Insurance Commission in Australia in 1976.

MEDICAL REHABILITATION in its broadest sense is part of all patient care. It is the function of every practicing doctor and involves the prevention, assessment, management and medical supervision of a person with disability until that person has attained an adequate and appropriate level of performance.

A more technical definition of rehabilitation is included in Attachment 1. This is a plan for what the AFRM defines as Rehabilitation Medicine.

2.3 The target population for rehabilitation services

There are four groups of adults who benefit from multidisciplinary rehabilitation:

- People who experience a new acute event requiring hospitalisation and who cannot go home without a return of, or improvement in, function. Examples include patients who have had a stroke, fractured NOF, joint replacement, limb amputation or spinal cord damage.
- People whose episode of care from that acute event is continued as an outpatient - who benefit from ongoing input from clinicians for continuing therapy and review of progress, with occasional new interventions. Examples include people with stroke who benefit from speech therapy, people whose spasticity benefits from botulinum toxin injection, people who require equipment and aids for independent living.
- People who are living with a congenital or acquired disability, or chronic illness who have intercurrent acute events – such as swallowing difficulties, reactions to medications, urinary tract infections, pressure sores, fractures, increases in challenging behaviour – who need outpatient clinicians for assessment and immediate management of that episode and
- People who are ageing and experiencing the functional losses associated with multiple chronic diseases. This group do not need hospitalisation but would benefit from outpatient clinicians – possibly single practitioners, but more likely more than one practitioner, in a coordinated and purposeful program.

All four groups are in scope for this plan and their need for rehabilitation is considered in more detail in the next section.

3 THE NEED FOR REHABILITATION SERVICES

A critical task in the Review has been to analyse the current capacity to respond to current levels of demand and to identify areas of unmet need. Key to this is to define the 'need' for rehabilitation services. We have analysed this by using a useful description of different types of need that was first developed over thirty years ago³. The strongest evidence of 'need' is when these different perspectives coincide.

Three main strands of analysis have been applied, broadly relating to:

- population factors
- demand/utilisation patterns
- supply considerations

The first step is to analyse the population for whom the service is to be provided, in terms of size, distribution, trends and the features most closely associated with need for particular services. In this case, the major determinants of rehabilitation need are population age and morbidity patterns.

We explore 'expressed need' by analysing information about rehabilitation service utilisation, including levels and patterns of use, comparisons with other parts of Australia, recent trends and future projections.

Finally, we review the adequacy of the existing service supply arrangements in terms of:

- population factors and trends
- service utilisation patterns and trends
- service performance in meeting needs
- comparison with standards and benchmarks.

3.1 Population profile of Tasmania and future projections

In 2006, Tasmania had a population of just under half a million people, of whom almost half live in the Southern region. Table 1 shows change in the estimated resident population (ERP) and distribution by region over the 5 years to 2005.

Table 1 Estimated Resident Population by Region, 2001-2005

Region	2001	2002	2003	2004	2005
Northern	133,115	133,644	135,149	136,668	137,936
North Western	106,826	106,392	107,194	107,918	107,883
Southern	231,854	232,576	234,962	237,650	239,444
TASMANIA	471,795	472,094	477,305	482,236	485,265

Source: ABS, 2006

In 2005, an estimated 14.5% of the state's population was aged 65 years or more. This is higher than the national figure of around 13% and a major determinant of rehabilitation need.

Statewide, the population is growing slowly (<1% per year), but growth rates vary across regions, with the North West virtually static.

However, the older population (65+) is growing at *three times* the rate of the population as a whole, with the most rapid growth rate being in the North West: 2.7% p.a. between 2001 and 2005.

³ Bradshaw, J. (1972) The concept of social need. *New Society*, 3, 640-643

Table 2 shows the ABS population projections for Tasmania as a whole and by region. These populations are expected to vary only slightly, with no increase in the overall population. It should be noted that the 2006 projections are lower than the 2005 ERP and it appears likely that the next set of projections based on the 2006 Census, will show more growth.

Table 2 Population projections 2003-2018

Region	2006	2012	2015	2018
Northern	137 071	138 679	139 198	139 524
North Western	104092	101651	100073	98295
Southern	235330	237735	238394	238744
TASMANIA	476493	478065	477665	476563

Source: ABS Population Projections, based on 2001 Census

In spite of limited overall population growth, the population aged 70 years or more is expected to increase by 45-50% between 2003 and 2018 (see Table 3).

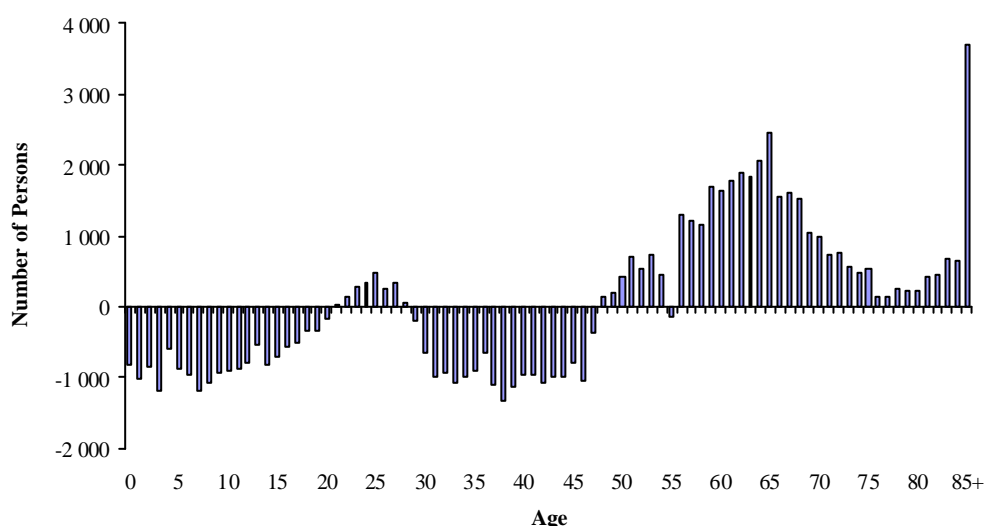
Table 3 Population aged 70 years and older in each Tasmanian region

Region	2003		2018	
	Number 70+	% Total Pop	Number 70+	% Total Pop
North	13942	2.9	20820	4.4
North West	10876	2.3	16214	3.4
South	23478	4.9	34318	7.2
TOTAL	48296		71352	

Source: ABS Population Projections, based on 2001 Census

This means that the population age profile will change significantly. Figure 2 shows projected changes in the age profile of the Tasmanian population in the period 2002 to 2012.

Figure 2 Projected Net Change by Age, Tasmania, 2002 to 2012



Source: ABS Population Projections Australia 2002-2101 Cat No. 3222.0. Cited in *Tasmania's Population 2003 An information paper on recent trends and State Government policies* Department of Treasury and Finance, 2003, ISBN 0 7246 5092 X

This trend has major implications for rehabilitation service needs across Tasmania, in that the need for rehabilitation (and other sub-acute) services increases steeply with age.

In NSW, hospital utilisation data are used to develop weightings that show the relative need for inpatient services (including rehabilitation) by males and females at different ages. These age/sex weights are best explained by example.

The average NSW resident is given a weighting of 1.00 to reflect their use of inpatient rehabilitation services. These weightings vary with age and sex, as shown in Table 19 in Attachment 2. Males aged 85+ years have a weight of 13.76 in terms of rehabilitation services. They are estimated to 'need' 13.76 times more rehabilitation than the average NSW resident.

These data demonstrate that 'need' increases with age, particularly for sub-acute care services. Thus, health services that serve an older population have a greater need for resources than those with younger populations. This has important implications as the population of Tasmania continues to age.

With a 45% increase projected in the major user group, demand for rehabilitation services can be expected to increase by a similar factor.

3.2 Expressed need - service utilisation

Expressed need defines need in terms of what services people use. It is based on what you can infer about a community through observing its use of services. A community or person who uses a lot of services is assumed to have high need. A community or person who does not is assumed to have low needs. However, expressed need is influenced by the availability of services. If one community has many, well-distributed resources, its population is likely to use more services than a community with few services.

For this reason, we have analysed both the supply of rehabilitation services in Tasmania and the patterns of service utilisation to gain a closer appreciation of how demand for rehabilitation services is currently being expressed.

Table 4 and Table 5 summarise rehabilitation and related services as at December 2006. There were a total of 47-49 designated rehabilitation beds in the public sector and 30 in the private sector. This is equivalent to 10.3 public beds per 100,000 or 16.2 total rehabilitation beds per 100,000. The only medical rehabilitation specialists were in Hobart.

It is understood that additional private hospital rehabilitation services with up to 10 beds each are being developed: one in Hobart and the other in Launceston.

These tables demonstrate the paucity of ambulatory and community rehabilitation services in the North and North West. Relative to these two regions, the South is well supplied with its Community Rehabilitation Unit (CRU) and 10 community transition care packages managed through Karingal.

Table 4 Rehabilitation services summary as at end 2006

Sector	Inpatient	Outpatient and community
North	LGH – 16-18 rehabilitation beds.	1.7 FTE allied health and a Rehabilitation Coordinator (project position)
North West	NWRH Burnie – 8 rehabilitation beds	0.9 FTE allied health and a Rehabilitation Coordinator (project position)
South	RHH Dwyer Ward - 23 rehabilitation beds St Johns Hobart – 30 rehabilitation beds	Community Rehabilitation Unit Hobart with 32.8 FTE

In addition, there were approximately 70 other sub-acute and non-acute beds, all of which were located in the south.

Table 5 Related sub-acute services summary as at end 2006

Sector	Inpatient	Outpatient and community
North	-	5 proposed transition care packages
North West	-	-
South	Transition Care Unit, 2nd floor Repatriation Centre - 22 beds - including capacity for 10 secure beds. GEM Unit, 3rd floor, Repatriation Centre - 20 beds Karingal - 22 transition care beds Strathaven - 6-8 leased beds as needed for patients awaiting residential placement	Karingal Hobart - 10 community transition care packages

The Community Rehabilitation Unit (CRU) in Hobart is the only ambulatory rehabilitation service in Tasmania. The staff profile of the CRU is shown in Table 6. With a total of 32.8 FTE staff, the South is very well catered for relative to the other regions. The North has 1.7 FTE and the North West has 0.9 FTE ambulatory and community-based allied health positions.

Table 6 CRU staff establishment 2006

Type	FTE
Medical (incl. registrars)	0.7
Nursing (incl. ENs)	2.2
Allied Health	19
Admin/clerical	5.3
PSA/Ancillary	3.6
Other	2
TOTAL	32.8

3.2.1 Utilisation of inpatient rehabilitation services

An analysis of hospital inpatient data for patients classified under either the 'Acute Rehabilitation' or 'Sub-acute Rehabilitation' SRGs⁴ shows that, in 2004-05, most but not all of these patients were managed in designated rehabilitation units. Patients in private hospitals were much more likely to be classified as requiring acute rehabilitation, whilst most public hospital patients were classified as 'sub-acute'. This may reflect in part on the waiting time for transfer as well as the level of inpatient care provided. Table 7 provides a breakdown of inpatient separations and bed days by classification and hospital type.

Table 7 'Rehabilitation' activity: Tasmanian public and private hospitals, 2004-05

Activity measure	Public hospitals	Private hospitals	Total
Acute Rehab - separations	16	153	169
Sub-acute Rehab - separations	906	227	1133
Total Rehab separations	922	380	1302
Acute Rehab - bed days	308	3457	3765
Sub-acute Rehab - bed days	22652	4313	26965
Total Rehab bed days	22960	7770	30730

Source: Harges, 2006, based on Tasmania Hospital Inpatient Data Collection

In total, these rehabilitation patients utilised the equivalent of 70 public hospital beds (at a 90% occupancy rate) and 24 in the private sector, distributed as shown in Table 8 below. This suggests that around 21 designated rehabilitation patients at RHH were being managed outside Dwyer Unit.

⁴ SRG = 'Service Related Group' - a grouping of DRGs intended to most closely approximate clinical specialties.

Table 8 'Rehabilitation' bed utilisation: Tasmanian public and private hospitals, 2004-05

Hospital	Beds @ 90%
Royal Hobart	44
Launceston	16
NWRH Burnie	7
District hospitals	3
Private	24
TOTAL	92

Source: Hardes, 2006, based on Tasmania Hospital Inpatient Data Collection

Rehabilitation is provided for most patients within their region of residence and this is reflected in high levels of self sufficiency (see Table 9, although 26% of separations of North Western residents were from hospitals in other regions (mainly Launceston). This reflects not only the limited rehabilitation capacity at North Western Regional Hospital, but also the supply of specialist clinical services which means many patients travel to Launceston or Hobart for acute care.

Table 9 'Rehabilitation' patient flows, 2004-05

Region	% residents treated in region (self-sufficiency)	% inflows from other regions
Northern	89.8%	7.1%
North Western	74%	1.1%
Southern	97.6%	4.9%

Source: Hardes, 2006, based on Tasmania Hospital Inpatient Data Collection

The largest inter-regional flow is to Launceston, where over 7% of separations are from other regions. Limited flows to RHH may reflect supply limitations at the time. Details of rehabilitation hospital catchments and patient flows are included in Attachment 3.

3.2.2 Sub-acute and non-acute care provided in other inpatient units

In addition to the designated services described above, a large number of acute beds are occupied by people in a 'rehabilitative' or 'restorative care' phase of their episodes of care. This is illustrated in Table 10 below. The methodology applied in developing this table involved the use of a group of rehabilitation-sensitive DRGs that were organised into 'functional loss' groups. These are DRGs in which a significant proportion of patients require rehabilitation care.

All separations with a length of stay longer than 10 days were selected and, for the purpose of this analysis, it was assumed that the first 10 days of their stay was 'acute'. Any days beyond 10 were days when patients could have more appropriately been receiving rehabilitation or other sub-acute care. While this would not have been true for every patient, this method gives an overall estimate of potential sub-acute and non-acute patient activity in acute beds.

In summary, the analysis found that, across Tasmania, about 195 beds are occupied by rehabilitation and other subacute patients. With the exception of the rows labelled Acute Care Type only, this includes the beds at Karingal, GEM and TCU. There are 47-49 designated rehabilitation beds at present (23 Dwyer, 16-18 at LGH and 8 at NWRH) plus 64 other sub-acute beds (22 TCU, 20 GEM and 22 at Karingal): a total of about 112 sub-acute beds.

This indicates that on average, up to 85 acute care beds in Tasmanian public hospitals are occupied by rehabilitation and other sub-acute patients.

If 'care type' is applied as an indicator, the conclusion is similar, with 103 acute beds being occupied by rehabilitation and extended care patients. Results by hospital and by functional loss group are included in Attachment 4.

Table 10 Summary of bed days in 'rehabilitation or restorative care' 2005-2006 patients with a length of stay greater than 10 days

Hospital and type of care	Admissions	Total LOS	Acute days	Acute beds	Rehab* days	Rehab ALOS	Rehab beds
RHH all care types	1301	31.2	13010	40	27582	21.2	84
RHH Acute Care Type only	732	22.3	7320	22	9031	12.3	27
LGH all care types	854	27.7	8540	26	22808	26.7	69
LGH Acute Care Type only	601	24.5	6010	18	14098	23.5	43
Burnie all care types	318	25.5	3180	10	7805	24.5	24
Burnie Acute Care Type only	240	23.2	2400	7	5337	22.2	16
Mersey all care types	287	22	2870	9	6035	21.0	18
Mersey Acute Care Type only	265	21.6	2650	7	5458	20.6	17
All care types	2760			85			195
Acute Care Type only	1838			54			103

* 'rehab' = rehabilitation or restorative care

3.2.3 Utilisation of ambulatory and community rehabilitation services

Table 11 shows the ambulatory rehabilitation activity profile. The CRU in Hobart saw fewer clients in 2005-6 than it did in the previous year (857 in 2004/2005) due to staff shortages and a 20% decrease in referrals. Less than 50% of clients received multidisciplinary care, meaning that the majority do not meet the strict definition of rehabilitation and are more appropriately regarded as allied health outpatients.

Table 11 Ambulatory rehabilitation service utilisation: 2005-2006

Indicator	CRU Hobart	LGH	NWRH
Total patients treated	680	313	0
Occasions of service	16476	1829	0
Average OOS per patient	24.23	5.8	0
Average OOS per FTE	502	1075	NA
% of patients with a documented multidisciplinary rehabilitation plan	~50% (only clients seeing >=1 discipline)	NA	NA

The notable difference between Hobart and Launceston is the four-fold difference in the average occasions of service provided per patient. While some of this difference may be due to differences in the impairment profile of the two services (see Table 12), the major reason is no doubt due to differences in the resource base of each service, reflecting historical funding decisions.

Table 12 Ambulatory rehabilitation impairment profile 2005-2006

Impairment group	CRU	LGH
Stroke	~20%	15%
Orthopaedic conditions	~5%	6%
Neurological conditions	~28%	2%
Brain injury	~20%	2%
Spinal cord injury	~3%	0%
Amputation of limb	~7%	30%
Arthritis	0%	0%
Pain syndromes	~3%	0%
Cardiac	0%	0%
Pulmonary	0%	0%
Major multiple trauma	0%	30%
General debility	~14%	15%
Total	100%	100%

3.2.4 Projected demand

The Tasmanian Department of Human Services has engaged Harges Associates to develop its inpatient bed projections. The Harges methodology for projecting future demand for inpatient rehabilitation services is based on an analysis of utilisation patterns in previous years, with age-sex standardised utilisation rates for individual DRGs being applied to ABS population projections. This model is now in use in most states of Australia although it has some limitations in that the 'Sub-Acute Rehabilitation' classification relies on patient episodes being 'type changed' and a rehab flag applied. Even so, it provides a fair indication of trends and future service requirements.

The projections in Table 13 below show that, if current patterns of utilisation are maintained, demand for sub-acute rehabilitation beds in Tasmanian hospitals will more than double between 2004-05 and 2016-17. While 'acute rehabilitation' activity is projected to increase, the numbers remain insignificant⁵.

It should be noted that these projections assume a *status quo* scenario with retention of current patterns of inpatient admission and stay. Alternative models of care that promote more ambulatory and community rehabilitation may result in somewhat lower rates of growth. Currently however, the evidence on which to base such modelling is not well developed; hence the *status quo* scenario has been adopted for reference in this plan.

Table 13 Projected rehabilitation activity: Tasmanian public hospitals, 2004-05

Activity measure	2004-05	2011-12	2016-17
Separations	922	1394	1895
ALOS	24.9	26.2	26.2
Overnight beds	70	111	151

Source: Harges, 2006, (status quo scenario) based on Tasmania Hospital Inpatient Data Collection

A slightly slower rate of growth in sub-acute demand is projected for private hospitals, particularly for acute rehabilitation (see Table 14). However, an expansion of supply may well result in earlier and sharper increases in private sector rehabilitation activity, given the likely extent of latent demand.

⁵ The 'acute' rehabilitation category applies mainly to private hospitals and relates to different funding arrangements between public and private hospitals. Most rehabilitation patients in public hospitals are classified as 'sub-acute'.

Table 14 Projected rehabilitation activity: Tasmanian private hospitals, 2004-05

Activity measure	2004-05	2011-12	2016-17
Separations	380	506	599
ALOS	23.2	25.7	25.8
Overnight beds	24	37	43

Source: Hardes, 2006, based on Tasmania Hospital Inpatient Data Collection

Details of these projections showing the breakdown by hospital are included at Attachment 5.

3.3 Comparative need

When need is defined in a comparative way, a region, population group or person is considered to be in 'need' if they have more health problems, or less access to health services, than other regions, population groups or individuals.

In the current context, measures of comparative need have included assessing differences between regions within Tasmania and differences between Tasmania and other parts of Australia.

3.3.1 Planning benchmarks

Population-based planning benchmarks can be used to assess and plan rehabilitation inpatient services. Table 15 compares the ratio of rehabilitation beds per 100,000 population Tasmania with other states and overseas. The 77 designated beds now available in Tasmania equate to a benchmark of just over 16 beds per 100,000.

Table 15 Summary table of jurisdictional bed planning benchmarks

Source	Rehabilitation Beds	GEM beds
Tasmania (current designated beds in both the public and private sectors)	16.2	4.2
Hospital Inpatient Data Analysis 2004-05 (Hardes)	19.8	-
NSW AIM 2005	28.8-35.5	
NSW Sub-acute bed projections 2006	28.8-29.4	
Ontario (HSRC, 1997, 1998)	20-25	14-19
NSW Health (1994)	28-32	
Victoria (DHS, 2001)	29-32	24-26

Note: All data expressed per 100,000 population

There are fewer benchmarks for GEM services but on the basis of 20 GEM beds per 100,000 population, Tasmania has only about 20% of the required number.

As shown in the table above, the typical benchmark used is 28-30 rehabilitation beds per 100,000 population. On this basis, Tasmania would require about 145 rehabilitation beds currently, distributed as shown in Table 16 below. This highlights the extent of the shortfall in the North and North West of the state - a shortfall that is expected to be exacerbated by the rapid ageing of the population in those regions.

In practice, it is expected that some of the beds for North West and possibly Launceston would be supplied in Hobart, due to the link with specialist surgical services there.

Table 16 'Rehabilitation' patient flows, 2004-05

Region	ERP 2005	Rehab beds required	Beds available	Unmet need
Northern	137,936	41	16	25
North Western	107,883	32	8	24
Southern	239,444	72	53	19
TASMANIA	485,263	145	77	68

Source: Hardes, 2006, based on Tasmania Hospital Inpatient Data Collection

3.3.2 Interstate comparisons

Detailed comparative data are provided in Attachment 6, but broadly, there are large variations between the States and Territories in the provision of inpatient care. Tasmania reports providing relatively more acute care and less rehabilitation care than other jurisdictions and specifically, compared with national benchmarks Tasmanian data show:

- a longer length of stay in acute care
- a lower percentage of separations and bed days in rehabilitation
- a higher percentage of maintenance care.

This is indicative of an imbalance within the Tasmanian health system, favouring acute care and nursing home type care at the expense of rehabilitation.

3.3.3 Performance of public inpatient rehabilitation services

Table 17 summarises the role and performance of the three public inpatient units in 2005/2006. In total, the three units had 537 admissions, with the average length of stay (ALOS) varying from 25 to 38 days.

Table 17 Key indicators about the three designated inpatient rehabilitation units

Indicator	RHH Dwyer	LGH	NWRH Burnie
Admissions	291	187	59
Bed days	7423	5591	2242
Average length of stay	25.5	29.8	38
Transfers to other rehab services	NA	-	Nil
Transfers from other rehab services	NA	1	7
Impairment groups:			
Stroke	35	40	66
Orthopaedic conditions	16	35	7
Neurological conditions	0	10	
Brain injury	26	1	3
Spinal cord injury	5	1	7
Amputation of limb	8	3	3
Pulmonary	1	-	
Major multiple trauma	1	2	3
General debility	9	8	
Other	0		11
Total	100%	100%	100%
Quality indicator 1	100.0%	69.6%	Start = 97% End = 82%

Indicator	RHH Dwyer	LGH	NWRH Burnie
Quality indicator 2	97.0%	96.8%	98%
Outcomes at discharge:			
Discharged home to usual care	NA	80%	34%
Discharge home with community services	NA	42.7%	49%
Discharged to aged care residential facility	NA	2.67%	3%
Transferred to acute hospital	NA	Occasional	
Other (inc. unplanned interruptions)	NA		14%

Quality indicator 1 % of patients with a documented functional assessment at both the start and the end of their rehabilitation episode

Quality indicator 2 % of patients with a documented multidisciplinary rehabilitation plan

The three units differ in terms of their impairment profile, with the LGH having the profile most typical of public sector rehabilitation units. A third of the Dwyer unit patients were admitted for rehabilitation after a stroke and a further quarter after a brain injury. Both the Dwyer unit and the Burnie unit undertake less orthopaedic rehabilitation than would be expected given their roles as general public rehabilitation units.

The table includes two quality indicators. In relation to both indicators (the percentage of patients with a documented functional assessment at both the start and the end of their rehabilitation episode and the percentage of patients with a documented multidisciplinary rehabilitation plan), the data suggest that, in 2005/2006, there was room for improvement, especially at the LGH and the NWRH. In relation to outcomes at discharge, the results suggest data quality problems. These problems are now being rectified as all three units have begun benchmarking through the Australasian Rehabilitation Outcomes Centre (AROC).

Table 18 summarises the performance of the three units on two key national benchmarking measures. The first measure is the amount of functional improvement each unit achieves relative to that expected given the unique casemix of each unit. This is measured using the Functional Independence Measure. The second is the average length of stay (ALOS) relative to that expected given the unique casemix of each unit.

On average, the RHH Dwyer unit achieved 1.4 FIM points less than other public rehabilitation units and patients stayed 1.1 days less. The LGH unit achieved 1.6 FIM points more than expected but took, on average, 7.3 days longer to do so than other public rehabilitation units in Australia. The Burnie unit achieved 1.6 FIM points less than other rehabilitation units while its patients stayed 0.9 days less.

The figures in this table are based on the first data sets that the units submitted to AROC and, with relatively low volumes in all units, the results should be treated with some caution. As such, these indicators should be reviewed when more data are available. There is some evidence linking the shorter length of stay at RHH with access to transitional care and GEM beds.

Longer lengths of stay and lower levels of functional gain suggest that the rehabilitation being provided is not of sufficient intensity to achieve maximum functional gain in the minimum time possible. This is generally reflective of inadequate levels of allied health staffing.

Table 18 Performance of three rehabilitation units compared with other public hospitals (January-December 2006)

Hospital	FIM improvement	ALOS
RHH	-1.40	-1.09
LGH	1.58	7.32
NWRH Burnie	-1.60	-0.90

Source: Australasian Rehabilitation Outcome Centre, with permission from the three units

3.4 Normative need

Normative need is defined by expert opinion regarding appropriate standards, required levels of service and what constitutes an acceptable health status level for a community.

The tables **Error! Reference source not found.** in Attachment 7 list the standards set down by the Australasian Faculty of Rehabilitation Medicine (AFRM). The AFRM standards are designed for units providing fast stream rehabilitation under the clinical management of a Rehabilitation Physician. There are no equivalent standards for geriatric medicine.

The staffing of all inpatient units is below that recommended by the AFRM. Due to variations in program duration, it is not possible to assess the CRU against these standards.

3.5 Summary

The needs assessment indicates that:

- Relative to national standards, Tasmania is under-supplied with rehabilitation beds with the current shortfall estimated at around 50-60 beds. Medical and allied health staffing levels fall well short of recommended standards.
- With only 47-49 designated rehabilitation beds in Tasmanian public hospitals, at least 70 other beds are being used by patients formally classified as undergoing rehabilitation. Further, it is estimated that up to 195 beds, including up to 100 acute beds, are being used by patients requiring rehabilitation or restorative care.
- The lack of ambulatory rehabilitation services in the North and North West regions limits alternative options to provide rehabilitation to those who require it.
- The projected 45% increase in the population aged 70+ from 2003 to 2018 has major implications for rehabilitation and other sub-acute care needs.
- Demand for inpatient rehabilitation services in Tasmanian public hospitals is projected to more than double between 2004-05 and 2016, with around 150 beds being needed at that time *if current patterns of use are maintained*.
- Current outcome data suggest that shortages of allied health staff and alternative rehabilitation service options may be having a negative impact on outcomes and/or length of stay.

4 SUMMARY OF KEY ISSUES

4.1 Status of rehabilitation within Tasmania's health system

Consultations have highlighted the relatively poor status accorded rehabilitation relative to acute care services in Tasmania, in spite of the needs arising from population ageing and increasing frailty.

Current resource allocation and staffing arrangements tend to reinforce this view, with acute care services being developed without attention to the rehabilitation service needs associated with these developments. This is particularly apparent in northern Tasmania, where the level of specialist rehabilitation service provided has remained static while acute care services have expanded.

As well, the delivery of certain specialist clinical services such as neurosurgery, vascular surgery and trauma surgery is not necessarily paralleled by the supply of specialised rehabilitation services, such as brain injury rehabilitation and amputee services. The lack of specialist clinical staffing and in some cases, dedicated staffing, fuels the perception of rehabilitation as a lower status specialty. The need for strong clinical leadership to raise the profile of rehabilitation services and drive service development is evident.

4.2 Service roles and relationships

One of the major difficulties faced in developing rehabilitation services to national standards is the present lack of clarity around the rehabilitation role. There are apparent overlaps and some blurring of service roles between rehabilitation services and other services including stroke, geriatric management, restorative care and maintenance therapy.

Sub-acute service development at RHH has tended to focus on geriatric rather than rehabilitation services but at the same time, has resulted in more geriatric rehabilitation patients being referred to GEM and TCU rather than to the rehabilitation unit. It appears that the GEM unit may be serving a geriatric rehabilitation function.

While it is expected that this review will clarify the role of rehabilitation services and relationships with other related services, the Rehabilitation Network now being organised by clinicians is well placed to ensure that these service roles and relationships are effectively implemented.

4.3 Statewide resource allocation

Overall, Tasmania has a deficiency in resources allocated to rehabilitation services relative to Australian standards. This reduces both the range and depth of services that can be provided and means that some needs groups miss out altogether.

Deficits in the overall supply of rehabilitation services and shortfalls in staffing levels are greater in the North and North-West regions than in the South which has benefited from recent allocations and an historical funding arrangement which preserved community-based rehabilitation and therapy services.

Statewide, there are also issues with access to aged care facilities, disability services and maintenance therapy, including the ability of 'sub-acute' patients to access post-acute care packages. These restrictions affect the capacity of inpatient rehabilitation services to discharge some patients with on-going care needs so reducing service efficiency and throughput.

4.4 Model of service delivery

Rehabilitation services have not been developed in a systematic way to provide a range of service options or continuity of care across sites or settings. As a result, the existing model of service

delivery is somewhat disjointed. This affects the ability of rehabilitation services to provide timely, appropriate intervention to the range of needs groups. Specific issues include:

- A focus on inpatient care and a lack of ambulatory/community rehabilitation and allied health services, particularly in the North and North West.
- Limited coordination between inpatient rehabilitation services and acute care services which affects timely referral, assessment and interim management of patients in acute care wards requiring rehabilitation. The RASL team is helping at RHH, but medical and allied health staffing levels limit collaboration at other sites.
- A lack of integration between inpatient rehabilitation services and community care services. In the South this is seen to reflect fragmentation in service structures and case management/discharge planning arrangements whereas in the North and the North West it is more a matter of service gaps, especially in allied health resources.
- Lack of step-down/transition care provisions outside Hobart. While district hospitals may serve this purpose in the North and the North West, allied health support is limited.

There are not yet formalised network linkages among rehabilitation services in different regions. This limits opportunities to optimise use of available specialist resources, to support common training/staff development programs and to implement collaborative approaches to patient management.

4.5 Clinical staffing levels

As shown in Section 3.4 above, clinical staffing levels in most units are low relative to Australian standards. This has a negative impact on the ability of services to deliver multidisciplinary rehabilitation and achieve expected outcomes efficiently. While this reflects in part the resource allocation issues discussed above, several other factors are also relevant to the overall staffing situation.

The availability of formal training and development programs is limited. Specifically Tasmania universities do not offer allied health training in key disciplines such as physiotherapy and occupational therapy. Post-graduate rehabilitation nursing is available only in mainland states. There are shortfalls in most of these disciplines and relatively few nursing staff with rehabilitation qualifications. At the same time, a lack of therapy aides, ENs/AINs or patient care assistants means that the skills of these scarce health professionals are not being used as effectively as possible.

There is a national shortage of rehabilitation medicine specialists and the few in Tasmania have a limited capacity to support registrar training and RMO supervision. Within the state, continuing professional development (CPD) tends to be *ad hoc* rather than formally structured and there is some concern about the ability to sustain the accredited registrar training post in light of current medical specialist staffing levels. In addition, current JMO staffing arrangements are seen to discourage potential recruitment opportunities in that:

- registrars are recruited as medical registrars on call rather than designated for Rehabilitation and Geriatrics.
- there is no Rehabilitation and Geriatrics rotation for RMOs - cover is provided by medical RMOs.

With limited capacity to train and recruit rehabilitation specialists locally, Tasmania will continue to rely on interstate recruitment. In this context, concerns have arisen in relation to matters such as on call rosters, locum relief, administrative support and salaries. Good clinical leadership is a key factor in achieving improved medical staffing.

Levels of community and rural allied health staffing are generally low. Even where resources are more adequate, roles and responsibilities are not always clear and the range and depth of

expertise tends to be uneven across disciplines. This reduces the ability to provide community-based multi-disciplinary rehabilitation for patients with more complex needs.

4.6 Organisational structures

In spite of some changes that have been made in recent years, the existing organisational structure presents some barriers to the development and delivery of an effective system of rehabilitation services. Not least is the separate management of hospital and primary health sectors, which runs counter to the integrated model of delivery required to support an effective rehabilitation service.

This review has highlighted a need to strengthen overall clinical direction for rehabilitation services, both Statewide and at Regional level, with the capacity for program planning and management across both hospital and community settings.

Too often, rehabilitation staffing arrangements seem to involve shared, part-time or rotating positions rather than dedicated posts. This tends to restrict effective multi-disciplinary team development and functioning, particularly when it involves key posts such as Nurse Managers and consultants who play a key role in team leadership, directing clinical practice and monitoring performance.

The role of the rehabilitation coordinators varies across regions, but in North West the Rehabilitation Coordinator is the only full-time team member and plays a key role in team building and service development.

4.7 Referral and assessment

Arrangements for referral and assessment of patients requiring rehabilitation raise some issues around delays in access to rehabilitation. While the referral and assessment process appears to be working quite well, rehabilitation teams report some problems with referrals that are inappropriate, or occur too late or not at all. In part this appears to relate to the understanding of the rehabilitation service role in other areas of the health system, but also reflects on the perceived difficulty of having patients accepted for rehabilitation given the limited capacity/throughput of available services. This is more so at Burnie and Launceston, where capacity is tighter.

Acute care services have reported difficulties with the referral and assessment process in terms of changing and/or complex documentation, delays in response by rehabilitation teams and, in the case of RHH, some historic difficulties in communication and cooperation between rehabilitation and acute care staff in referral, assessment and interim management arrangements. Acute care staff noted the importance of involving/upskilling nursing and medical staff on relevant acute wards to improve these arrangements and smooth the patient journey.

Staffing levels and the depth of expertise available have a clear impact on the ability of rehabilitation services to provide prompt and timely response to new referrals. The need for consistent staffing, clear channels of communication and well defined assessment and referral protocols is evident, more so at sites where staff turnover has been an issue.

The introduction of the RASL team has improved the process at RHH, particularly for geriatric patients, but there are still some issues of unevenness/lack of consistency and perceived delays in referral and assessment arrangements.

4.8 Admission, discharge and case management

An efficient, effective rehabilitation service will facilitate continuity of care from the point of patient acceptance to discharge. This implies a need for care planning both within individual rehabilitation services and across settings, from the acute to the community. Given the multidisciplinary nature of rehabilitation and the complex on-going care needs of some patients, good case management and discharge planning are essential.

While good case management and discharge planning models have been developed by staff at Launceston and Burnie hospitals, options for transferring patients from inpatient to step-down care, ambulatory and community based services are virtually non-existent.

In the south, where resources are relatively plentiful, care planning is not being implemented as effectively as possible for reasons that include:

- Tensions around rehabilitation admission criteria and processes at RHH
- Lack of integration/coordination between inpatient and community rehabilitation services, with the CRU-based rehabilitation coordinator having a limited role within the inpatient service.
- The lack of single point responsibility for discharge planning, resulting in a lack of coordination, multiple discharge summaries and delayed discharge in some cases. This then complicates referral to step-down or community services.

Across the state, access to appropriate step-down/disability services delays the discharge of some more complex patients and reduces throughput in inpatient units.

4.9 Specialist rehabilitation needs

Tasmania's public sector rehabilitation services are generally equipped to manage patients with stroke, neurological, orthopaedic, geriatric and other general rehabilitation needs. There is also an expectation that at least some of these services will provide for more specialist rehabilitation needs.

Spinal cord injury [SCI] rehabilitation mainly occurs in Melbourne, with patients referred to spinal nurses on discharge. However, these patients may be readmitted to local rehabilitation units if complications arise [eg UTIs, pressure sores]. The issue is that local staff are not necessarily skilled in management of SCI and spinal nurses are not well integrated with rehabilitation services.

Given the presence of the main neurosurgical service and trauma service at RHH, the referral of patients with acquired brain injury to local rehabilitation services [particularly the Dwyer unit] is almost inevitable. However, for reasons mainly related to physical facilities, patient mix and staffing issues, this arrangement is unsatisfactory. The specialist nature of brain injury rehabilitation requires a systematic statewide approach to establish an effective statewide network enabling discharge to community based programs following an initial inpatient episode in a specialised rehabilitation setting.

Amputee rehabilitation is provided at sites in all regions, but with vascular surgery now largely concentrated at RHH there is a need for greater coordination of amputee rehabilitation, including specialist clinics and links with prosthetic and orthotic services. The issue of access to appropriate rehabilitation for patients undergoing amputation at the Mersey Hospital also needs to be addressed in this context.

4.10 Orthotic and Prosthetic Services

While this review has not involved a detailed examination of the Orthotic and Prosthetic Service of Tasmania (OPST) there is some evidence to suggest that the service is currently over-extended in the face of increasing demands and fixed resources (including specialist staff).

In this situation, recruitment and retention of specialist technical staff may become a serious issue, particularly in light of the potential private sector alternatives. Opportunities to secure the future of the service by allowing at least some measure of commercialisation warrant consideration.

4.11 Infrastructure

Three main infrastructure issues arise in a consideration of the functionality of existing rehabilitation service arrangements and possible alternatives. These relate to facilities, equipment and transport and are summarised briefly below.

Facilities for inpatient and ambulatory rehabilitation are generally deficient. Apart from the limited capacity, specific concerns include:

- The difficulty experienced by all units in managing patients with post-traumatic amnesia, delirium, dementia or behaviour disturbance
- Dysfunctional ward facilities and lack of hydrotherapy access at RHH:
 - Ward layout unsuited to rehabilitation – no outdoor access
 - Lack of confidential ward office space.
 - No meeting/educational area
 - Inadequate storage space.
 - Poor venting of bathrooms.
- Facilities at Burnie are good but rehabilitation is located in a ward shared with acute care services and is subject to acute outliers.
- At Launceston, capacity has reduced from 32 beds originally to a maximum of 20 beds now, as areas of the ward have been resumed for other functions including stomal therapy, renal unit, aged care services and staff offices and resource room. There is no ambulatory rehabilitation facility or hydrotherapy; storage space for bulky equipment is limited and the therapy area is on a separate floor from ward.
- No provision for independent living units (ILU) which are used elsewhere to prepare patients for discharge.

Access to appropriate **equipment** is an issue for some more specialised rehabilitation programs and for patients requiring certain equipment before being discharged home. Issues appear to relate principally to the budget available for equipment. The premature exhaustion of equipment budgets and difficulties accessing supplies through Disability Services place pressure on rehabilitation services to subsidise the supply of equipment in order to discharge patients.

Staff report limited applications being made to the Board of Exceptional Needs – an option which may need closer attention.

Transport is commonly seen as a key factor limiting service options, especially networking of services across the Mersey and Burnie campuses in the North West and the ability to transfer patients awaiting placement to District hospitals around Launceston.

Issues arise in terms of access for relatives when patients are admitted to facilities out of their local area or not readily accessible by public transport and patient access to ambulatory rehabilitation programs or follow-up clinics.

4.12 Outcome measurement and benchmarking

In 2006 all three inpatient units joined the Australasian Rehabilitation Outcome Centre (AROC) and began participating in national benchmarking. This represents a significant advance for all units. However, as might be expected, routine outcome measurement and benchmarking is yet to be fully integrated into day to day practice. This will no doubt take some time.

Functional assessments at the CRU are completed at the discipline level. For example, physiotherapy uses the Modified Falls Efficacy Scale and the Berg Balance Scale and OT uses the Canadian Occupational Performance Measure. There is no current multidisciplinary functional assessment used at the multidisciplinary team level due to a lack of an identified suitable measure. This problem is not unique to the CRU and AROC is currently undertaking a project investigating the feasibility of developing an ambulatory rehabilitation data set. If so, it may be appropriate for the CRU.

5 PLAN FOR REHABILITATION SERVICES IN TASMANIA 2007-2012

5.1 Principles for Rehabilitation Service Planning

1. Rehabilitation services aim to:

- Optimise outcomes and improve the quality of life of people who have suffered a loss of function.
- Enable people to be discharged to a residential setting with minimal disability, as soon as is appropriate.
- Reduce the prevalence of disability and handicap in the community, thus reducing longer term health care and community support needs.
- Deliver services in a way that provides access to rehabilitation for people throughout Tasmania, regardless of financial status, cultural background or place of residence.
- Make the most cost-effective use of resources to improve outcomes by the application of evidence-based or consensus practice and continuing evaluation of service effectiveness.

2. Best practice in rehabilitation involves:

- A multidisciplinary approach to planning and delivery of care, with recognised clinical leadership.
- Tailoring services to individual client needs, including changing needs over time.
- Involvement of the client and where relevant, carer and/or family at all stages of care, particularly in setting realistic and achievable rehabilitation goals.
- Providing services in age appropriate environments, as close to the client's home as is compatible with high quality, culturally appropriate, effective and efficient treatment.
- Early commencement of rehabilitation and continuity of care across a range of treatment settings and providers, ranging from acute care facilities to the home.
- Formal referral processes, admission/entry and discharge/exit criteria for all services.
- Communication and coordination with other service providers to optimise outcomes for individuals requiring rehabilitation.

3. High quality rehabilitation service provision is supported by:

- A model of delivery that is responsive to diverse and changing population needs.
- Coordination/integration of rehabilitation services across settings and with broader health and community care systems, including formal links with other providers.
- Maintaining a skilled workforce through provision of specialist rehabilitation education and professional development.
- Research and evidence providing a basis for improved clinical practice.
- Information systems which support service monitoring, evaluation and long term planning with a focus on outcomes.
- Consumer participation to ensure that services are responsive to consumer needs and community preferences
- Infrastructure that supports the efficient and appropriate delivery of rehabilitation services in both inpatient and ambulatory settings.

5.2 Target group and role of rehabilitation services

Tasmanian adult rehabilitation services have four target groups:

- People who experience a new acute event requiring hospitalisation and who cannot go home without a return of, or improvement in, function. Examples include patients who have had a stroke, fractured NOF, joint replacement, limb amputation or spinal cord damage.
- People whose episode of care from that acute event is continued as an outpatient and who will benefit from ongoing input from clinicians for continuing therapy and review of progress, with occasional new interventions. Examples include people with stroke who benefit from speech therapy, people whose spasticity benefits from botulinum toxin injection, people who require equipment and aids for independent living.
- People who are living with a congenital or acquired disability, or chronic illness who have intercurrent acute events – such as swallowing difficulties, reactions to medications, urinary tract infections, pressure sores, fractures, increases in challenging behaviour – who need outpatient clinicians for assessment and immediate management of that episode and
- People who are ageing and experiencing the functional losses associated with multiple chronic diseases. This group do not need hospitalisation but would benefit from outpatient clinicians – possibly single practitioners, but more likely more than one practitioner, in a coordinated and purposeful program.

The age of the person is not a criterion for rehabilitation, nor is it the distinction between rehabilitation and GEM care. A person is eligible for rehabilitation if:

- They have an impairment, disability or handicap and
- They have the capacity to benefit from multidisciplinary therapy in the reasonable expectation that they will achieve functional gain.

It follows that the role of a rehabilitation service, both inpatient and community, is to:

- Undertake an individualised and documented initial and periodic multidisciplinary assessment of functional ability by use of a recognised functional assessment measure.
- Develop and implement an individualised multidisciplinary rehabilitation plan that includes negotiated rehabilitation goals and indicative time frames.
- Measure outcomes at discharge and make arrangements to meet any ongoing support needs.

Rehabilitation is critical to the efficient delivery of acute care and needs to be complemented by other sub-acute and non-acute services.

5.3 Proposed Strategy - Overview

1. Formalise the establishment of the Tasmanian Rehabilitation Network to enhance the status of rehabilitation and provide statewide policy direction, service planning and training.
2. Re-balance the investment in inpatient services by increasing provision for rehabilitation and other sub-acute care.
3. Establish integrated rehabilitation programs and organisational structures within each region, linking acute care, sub-acute care and community rehabilitation programs.
4. Promote an integrated, patient-focussed model of service delivery that extends across settings and includes patient identification/referral, assessment, care planning, case management and discharge planning.
5. Change current utilisation patterns to make more effective use of available rehabilitation resources and improve patient outcomes.
6. Align rehabilitation service development and specialisation with relevant acute clinical service planning and delivery
7. Develop and implement a rehabilitation workforce strategy including:

- leadership and team-building
 - recruitment/retention
 - training
 - making more efficient use of available resources
 - investment
8. Support the development of specialist rehabilitation programs:
- brain injury
 - spinal
 - amputee
9. Address infrastructure deficiencies that restrict service capacity and effectiveness:
- facilities
 - equipment
 - transport.

5.4 Planning Proposals

1. Formalise the establishment of the Tasmanian Rehabilitation Network to enhance the status of rehabilitation and provide statewide policy direction, service planning and training.

This is the first step and an essential feature of the proposed strategy to secure and strengthen rehabilitation services in Tasmania. There is scope to build upon existing successful initiatives in terms of the development of the clinical rehabilitation network and the evolution of the HARECS model in the south. The network may be linked with a similar initiative in Aged Care, but requires its own identity.

Key elements of the proposed network development include:

- Appointment of a Clinical Chair to provide leadership and direction.
- Establishment of mechanisms/structures to support statewide policy direction, network coordination, service development and training including a Rehabilitation Advisory Committee with a small secretariat as a sub-group of the Clinical Advisory Council.
- Development of a statewide training and CPD program, with resources to support participation by all service providers.
- Collaboration with the private sector.

2. Re-balance the investment in inpatient services by increasing provision for rehabilitation and other sub-acute care.

Options proposed to redress the present imbalance of acute and sub-acute care provision within the major Tasmanian hospitals and rectify the inappropriate use of acute care beds for sub-acute patients include:

- Increasing total rehabilitation bed capacity in line with population growth and national benchmarks, as shown below.

Region	Current rehabilitation beds	Beds @ 30 per 100,000 popln.	Additional beds required*
North	16-18	40	22-24
North West	8	30	22
South	53	70	17
Tasmania	77	140	63

*Some of the additional capacity may be in the private sector.

- Reclassification and reorganisation of some acute beds - [eg general medical, neurology, orthogeriatric] as rehabilitation beds, to
 - a. more appropriately reflect their use and
 - b. ensure that they are staffed appropriately.
- Relocation of non-rehabilitation functions from within the Launceston rehabilitation ward and re-establishment as a 32 bed unit.
- Development of sub-acute step-down/transitional care capacity in the North and North-West, rather than continuing to use acute and/or rehabilitation beds for these patients.
- Development of ambulatory/community rehabilitation programs to facilitate managed discharge capacity in the North and North-West.

3. Establish integrated rehabilitation programs and organisational structures within each region, linking acute care, sub-acute care and community rehabilitation programs.

These programs would each have a Program Director or Clinical Leader and a separate cost centre and would incorporate the following elements:

- Acute care liaison team promoting early commencement of rehabilitation (as per the RASL team in Hobart)
- Inpatient rehabilitation services - both fast track and slower stream models
- Step down/transition care for patients in the North and North West regions not achieving rehabilitation goals or awaiting placement (designated beds in other public hospitals or contracts with aged care facilities).
- Ambulatory/community rehabilitation programs
- A rehabilitation coordinator responsible for ensuring continuity of care across settings
- Multi-disciplinary teams with the requisite skill mix and the flexibility to work across settings
- Representation on the Tasmanian Rehabilitation Network.

4. Promote an integrated, patient-focussed model of service delivery that extends across settings and includes patient identification/referral, assessment, care planning, case management and discharge planning.

While the model may vary across regions, there is scope for a common approach. The first steps to achieving this - possibly by means of a statewide workshop – include:

- Defining roles and functions for each component of the service.
- Clarifying and simplifying processes/mechanisms for
 - a. referral and assessment
 - b. case management and discharge planning
 and developing common protocols to facilitate transfers among services/regions.
- Defining the role and responsibilities of the rehabilitation coordinators.

5. Change current service utilisation patterns to make more effective use of available rehabilitation resources and improve patient outcomes.

This involves a number of strategies:

- Clearly defining the rehabilitation service role to differentiate it from the roles of acute care, geriatric medicine, transition care and disability services.
- Implementing consistent protocols for identification, referral and assessment of potential rehabilitation patients in the acute care phase.
- Reorientating acute care wards to assume a more 'elder-friendly', restorative focus by preventing functional deterioration and promoting earlier commencement of rehabilitation and/or therapy programs and the adoption of the ACE (Acute Care of the Elderly) model.
- Develop step-down/transition capacity (North, North West)
- Extend the coverage of the Post-Acute Care Packages program to include rehabilitation patients being discharged home.
- Develop ambulatory/community rehabilitation programs (North, North West)
- Mechanisms to enhance joint planning and service delivery between Rehabilitation and Disability services, particularly with respect to the development and management of transitional and supported housing programs.
- Strengthen prevention via chronic disease management programs (eg, diabetes, hypertension) to reduce the risk factors underlying the growing demand for rehabilitation.

6. Align rehabilitation service development and specialisation with relevant acute clinical service planning and delivery.

Efficient and effective delivery of certain specialist clinical services requires access to rehabilitation services. The development/maintenance of certain specialist service roles should be contingent on the availability of appropriate rehabilitation services. This is particularly important in relation to:

- neurology/stroke
- orthopaedics/trauma
- neurosurgery - specialist brain injury program
- vascular surgery - coordinated approach to amputees
- burns and plastics

Staff in these acute care areas should have access to a rehabilitation consultation and liaison service and training to enable them to participate actively in the early identification and management of patients requiring rehabilitation.

7. Develop and implement a rehabilitation workforce strategy including:

- **Leadership and team-building**
- **Recruitment/retention**
- **Training**
- **Efficient use of available resources**
- **Investment**

Workforce development is essential to develop and consolidate rehabilitation services at the level required to respond to population needs, both now and in the future. Specifically this means progressively upgrading staffing levels to national standards, which implies a need for

additional investment, particularly in specialist medical and allied health staffing (see 7.5 below). However, a range of other changes are recommended to address some of the issues currently having a negative impact on workforce.

7.1 Leadership and team-building

- Clinical leaders (not necessarily medical) are required at regional level to build up multidisciplinary teams with dedicated/consistent medical, allied health and nursing personnel reporting to the rehabilitation team leader rather than discipline heads on day to day matters. Professional accountability can be to discipline heads.
- Through the Tasmanian Rehabilitation Network, provision of programs/workshops to promote multi-disciplinary team building, upskilling, collaborative practice and service development.

7.2 Recruitment & Retention

- Review statewide allied health resource allocation to ensure fair and balanced workloads in all regions.
- Ensure that professional classifications and grades for staff in rehabilitation services are consistent with those in other clinical areas and that staff are not disadvantaged professionally by electing to work in rehabilitation.
- Establish designated Rehabilitation and Geriatrics RMO rotations and registrar training posts rather than combined with medical posts.
- Utilise the Tasmanian Rehabilitation Network to establish statewide locum/relief staffing arrangements.
- Ensure that all staff have access to continuing education and skill development.
- Review all on call rosters to ensure that these are sustainable.
- Explore opportunities for collaboration with the private sector to jointly recruit staff with specialist skills, including from interstate.
- Strategies listed elsewhere in this section are also relevant.

7.3 Training

- In collaboration with universities on the mainland, seek to develop locally based clinical training in:
 - Physiotherapy
 - Occupational Therapy
 - Rehabilitation Nursing (post-basic)
 - Rehabilitation/therapy aides/assistants.
- Secure accredited registrar training posts by ensuring that all AFRM requirements are met. This may involve cooperation with the private sector.
- Through the Tasmanian Rehabilitation Network, develop a statewide training and CPD program, with resources to support participation by all service providers.

7.4 Efficient use of available resources

- Ensure that services have adequate clerical and operational support staff so that specialist clinical staff time can be used most efficiently.
- Promote the use of dedicated rather than part time, shared or rotational staff particularly in management and liaison roles.
- Expand the use of:

- therapy assistants to expand the capacity of existing allied health services.
- AINs or patient care assistants (PCAs) to complement RNs in rehabilitation (and other sub-acute) wards.
- Develop 'hub and spoke' arrangements - outreach visits plus telehealth support - to supply more specialised services to areas that are unable to sustain a viable service with a critical mass of staff. This includes:
 - medical consultation from Launceston to the North West
 - specialist rehabilitation services (eg, brain injury, amputee) to centres outside Hobart
 - highly specialised services (eg, spinal injury) on an outreach basis from Melbourne
- Allow for flexible use of rehabilitation personnel, particularly those with specialist skills, across both inpatient and ambulatory settings.

7.5 Investment

Without additional investment in rehabilitation services, Tasmania has little chance of strengthening rehabilitation services to the point where they meet population needs.

Investment is required in terms of staffing numbers, mix and quality/seniority. Specifically it is recommended that funding be made available (either through new funds or diverting funds from acute care) to:

- Increase overall staffing levels in rehabilitation services, particularly in the North and North West, to align with national staffing standards. The goal should be that all rehabilitation patients receive a minimum of 2 hours of therapy a day, six days a week⁶, provided by an appropriate mix of therapists and therapy assistants.
- Develop training, CPD and networking opportunities for rehabilitation service staff.
- Achieve a strategic upgrading of key positions to ensure that these attract and retain high quality staff, capable of effecting the changes required in existing rehabilitation services.

8. Develop specialist rehabilitation programs for brain injury, spinal cord injury and amputees.

- It is proposed that the redevelopment of RHH should allow for the development of a specialised 6-8 bed brain injury rehabilitation unit (BIRU), to be staffed along the lines of specialist BIRU's in other states, and linked through a statewide BIR network with step-down and community-based programs in all regions.
- Following the precedent in other jurisdictions, seek funding support for the development of this service from the Accident Compensation Board
- In regard to spinal cord injury (SCI) it is proposed that
 - SCI rehabilitation continue to be done in Melbourne, at least in the earlier stages
 - staff at regional rehabilitation units be up-skilled in the management of SCI patients
 - closer links be built between Spinal Nurses and rehabilitation units, including a stronger liaison role linking services with the specialist unit in Melbourne.
- Consolidate amputee rehabilitation to Hobart and Launceston, with specialist medical consultation and prosthetic and orthotic services being shared across the two sites.

9. Address infrastructure deficiencies in relation to facilities, equipment and transport that restrict rehabilitation service capacity and effectiveness.

⁶ The American standard is 3 hours of therapy per day. Very few Australian rehabilitation units are staffed at the US level, with 2 hours a day being more typical.

9.1 Capital works

Priorities for capital investment:

- Adaptation of existing ward facilities to accommodate patients with PTA, dementia or behaviour disturbance
- Ambulatory rehabilitation facility for Launceston.
- Additional inpatient beds at Launceston and in the North West.
- Redevelopment of RHH to include a BIRU and hydrotherapy pool.
- Development of wards at Mersey and selected district Hospitals for step-down/transitional care

9.2 Equipment

- Investigate the scope for commercialisation of OPST including the expansion of its role to include management of regional equipment pools.

9.3 Transport

- Implement a shuttle service between Burnie and Mersey hospitals to enable patients from Burnie to be transferred to Mersey and vice versa, without incurring an unnecessary burden on frail, elderly and poor relatives.
- Incorporate a mini-bus transport service in ambulatory rehabilitation service plans.

5.5 Strategic investment priorities

The plans outlined above imply a significant investment in both capital and recurrent funding. Given this, it is important to identify the most immediate investment priorities. Future investment priorities can then be considered once these more immediate requirements are in place.

5.5.1 Regional development

The two regions for priority development are the North and the North West. The South, while under-resourced by Australian standards, is demonstrably better resourced than the other two regions.

North

The immediate priorities for the North are to:

- build the inpatient unit back up to 32 beds.
- increase the intensity of allied health therapy by increasing the number of allied health staff working in the rehabilitation unit.
- develop step-down facilities. These should include a community rehabilitation service as well as GEM and transition care beds and transition care packages.

North West

The immediate priorities for the North West are to:

- improve medical coverage, including access to consultation-liaison rehabilitation medicine services provided from Launceston or Hobart
- develop step-down facilities. These should include a community rehabilitation service as well as transition care beds and transition care packages. The location of such services at the Mersey Hospital should be considered as part of the clinical services plan currently under development.

5.5.2 Community rehabilitation

The CRU in Hobart plays an important role in the South and access to a similar service is required in the North and North West. While the budget for such services would be held by primary care, these services need to be closely integrated with the inpatient rehabilitation units. Consideration should be given to whether it may be better to employ community rehabilitation allied health staff through the hospital, as is the case at present with some community allied health positions in the North.

5.5.3 Workforce development

The development and implementation of a rehabilitation workforce strategy is critical to the future of rehabilitation in Tasmania. The formal recognition and support of the Tasmanian Rehabilitation Network is the first step and this can be achieved without additional resources. That network should be given a mandate to provide advice to the Department with respect to:

- Leadership and team-building
- Recruitment/retention
- Training
- Efficient use of available resources

+++

The provision of a network of high quality rehabilitation services is critical to the future of both primary and acute care in Tasmania. The lack of appropriate rehabilitation is a false economy in any health system. Patients who require rehabilitation but do not receive it do not simply disappear. Rather, they are treated for unnecessarily long periods in acute beds, with many not reaching their potential to live independently and requiring ongoing maintenance care. A high quality rehabilitation service is in the interests of both the health system and the patients it treats.

5.6 Summary of resource implications

Recommendation	Within existing resources	Minor investment	Major investment
Establish Tasmanian Rehabilitation Network (TRN)	<ul style="list-style-type: none"> ▪ Establish Rehabilitation Advisory Committee as sub-group of the Clinical Advisory Council. ▪ Appoint Clinical Chair ▪ Collaborate with private sector. 	<ul style="list-style-type: none"> ▪ Develop & implement a statewide training/CPD program ▪ Resource participation of rehab clinicians from across Tasmania 	
Re-balance investment in inpatient services by increasing provision for rehabilitation & other sub-acute care.	<ul style="list-style-type: none"> ▪ Reclassify & reorganise some acute beds as rehab beds. ▪ Shift non-rehab functions from LGH rehab ward & re-establish a 32 bed rehab unit 	<ul style="list-style-type: none"> ▪ Develop sub-acute step-down & transitional care capacity in the North & North-West ▪ Develop ambulatory & community rehab programs in the North & North-West by redeploying community based therapy staff. 	<ul style="list-style-type: none"> ▪ Increase total rehab bed capacity to align with national benchmarks
Establish integrated rehabilitation programs & organisational structures within each region	<ul style="list-style-type: none"> ▪ Promote early commencement of rehab 	<ul style="list-style-type: none"> ▪ Appoint Program Director or Clinical Leader (upgrade position) ▪ Permanently appoint rehab coordinators in each region 	<ul style="list-style-type: none"> ▪ Establish multi-disciplinary teams with the capacity to work across settings in each region - increase allied health staffing ▪ Set up acute care liaison

Recommendation	Within existing resources	Minor investment	Major investment
			teams at LGH & Burnie
Promote an integrated, patient-focussed model of service delivery that includes patient identification/referral, assessment, care planning, case management & discharge planning.	<p>Through the TRN:</p> <ul style="list-style-type: none"> ▪ Define roles & functions for each component of the service ▪ Define common protocols for: <ul style="list-style-type: none"> ○ referral & assessment ○ case management & discharge planning ○ transfers between services/regions ▪ Define rehab coordinator role & responsibilities 		
Change current service utilisation patterns to make more effective use of available rehabilitation resources & improve patient outcomes	<ul style="list-style-type: none"> ▪ Clearly define the rehab service role (TRN) ▪ Implement common protocols for identification, referral & assessment of rehab patients in acute care phase ▪ Extend coverage of the PACP program to rehab patients ▪ Develop mechanisms to enhance joint planning & service delivery between Rehab & Disability services 	<ul style="list-style-type: none"> ▪ Reorientate acute care wards to assume a more 'elder-friendly', restorative focus ▪ Develop sub-acute step-down capacity & ambulatory rehabilitation programs in North & North-West ▪ Strengthen prevention via chronic disease management programs 	
Align rehabilitation service development & specialisation with relevant acute clinical service planning & delivery	<ul style="list-style-type: none"> ▪ Through role delineation, ensure that development/maintenance of certain specialist service roles is contingent on availability of appropriate rehab services 	<ul style="list-style-type: none"> ▪ Provide acute care staff with rehab consultation-liaison service & training in early identification & management of patients requiring rehab 	
<p>Develop and implement a rehabilitation workforce strategy including:</p> <ul style="list-style-type: none"> ▪ Leadership & team-building ▪ Recruitment/retention ▪ Training ▪ Efficient use of available resources ▪ Investment 	<ul style="list-style-type: none"> ▪ Review statewide allied health resource allocation to ensure fair & balanced workloads in all regions. ▪ Ensure that professional gradings for staff in rehab services are consistent with those in other clinical areas ▪ Review all on call rosters to ensure that these are sustainable ▪ Explore opportunities to collaborate with the private sector to jointly recruit staff with specialist skills ▪ Secure accredited registrar training posts by ensuring that all AFRM requirements are met ▪ Promote the use of dedicated rather than part 	<ul style="list-style-type: none"> ▪ Appoint clinical leaders at regional level ▪ Through the TRN, provide programs/workshops to promote multi-disciplinary team building, upskilling, collaborative practice & service development. ▪ Via TRN establish statewide locum/relief staffing arrangements. ▪ Via TRN develop a statewide training, CPD & skill development program, accessible by all service providers. 	<ul style="list-style-type: none"> ▪ Seek to develop locally based clinical training in Physiotherapy, Occupational Therapy, Rehab Nursing (post-basic) and for Rehab/therapy aides/assistants ▪ Ensure that rehab services have adequate clerical and operational support for clinical staff ▪ Establish designated Rehabilitation and Geriatrics RMO rotations and registrar training posts ▪ Develop 'hub and spoke' arrangements to supply more specialised services to areas unable to sustain a viable service:

Recommendation	Within existing resources	Minor investment	Major investment
	<p>time, shared or rotational staff particularly in management & liaison roles.</p> <ul style="list-style-type: none"> ▪ Develop a plan to expand the use of: <ul style="list-style-type: none"> ○ therapy assistants in rehab programs ○ AINs or patient care assistants (PCAs) to complement RNs in rehab & other sub-acute wards. ▪ Allow for flexible use of rehab staff in inpatient & ambulatory settings. 		<ul style="list-style-type: none"> ○ medical consultation from LGH to the North West ○ specialist rehab services to centres outside Hobart ○ highly specialised services via outreach from Melbourne ▪ Increase overall staffing levels in rehabilitation services, particularly in the North & North West, in line with national staffing standards. ▪ Strategically upgrade key rehab positions to secure good staff.
<p>Develop specialist rehabilitation programs for brain injury, spinal cord injury & amputees.</p>	<ul style="list-style-type: none"> ▪ Seek funding support for the development BIR services from the Accident Compensation Board ▪ Strengthen links between Spinal Nurses & rehab units, including the specialist SCI unit in Melbourne. ▪ Consolidate amputee rehabilitation to RHH and LGH with shared specialist medical consultation and artificial limb services. 	<ul style="list-style-type: none"> ▪ Upskill staff at regional rehabilitation units in management of spinal cord injury (SCI) patients 	<ul style="list-style-type: none"> ▪ Develop a specialised, appropriately staffed 6-8 bed brain injury rehabilitation unit (BIRU) at RHH, linked through a statewide BIR network with step-down & community-based programs in all regions.
<p>Address infrastructure deficiencies - facilities, equipment & transport - that restrict rehabilitation service capacity & effectiveness.</p>	<ul style="list-style-type: none"> ▪ Investigate scope to commercialise OPST and expansion of its role to include management of regional equipment pools. 	<ul style="list-style-type: none"> ▪ Adaptation of wards at Mersey and District Hospitals for step-down/transitional care ▪ Ambulatory rehabilitation facility for Launceston – possibly at the John L Grove centre 	<ul style="list-style-type: none"> ▪ Adaptation of existing ward facilities to accommodate patients with confusion or behaviour disturbance ▪ Additional inpatient rehab beds at Launceston and in the North West - extent depends on capacity to 'rebadge' and reorient existing acute beds ▪ RHH redevelopment to include a BIRU & hydrotherapy pool. ▪ Implement a shuttle bus between Burnie and Mersey hospitals. ▪ Include mini-bus transport service in ambulatory rehab service development plans.

Attachment 1

Types of subacute and non-acute care

The definitions of each of the care types within subacute and non-acute care have good inter-rater reliability⁷ and are as follows:

Rehabilitation

An episode of care:

- provided for a person with an impairment, disability or handicap and
- for whom the primary treatment goal is improvement in functional status
- which is evidenced by:
 - + an individualised and documented initial and periodic assessment of functional ability by use of a recognised functional assessment measure.
 - + an individualised multidisciplinary rehabilitation plan which includes negotiated rehabilitation goals and indicative time frames.

Inclusions:

- A Rehabilitation care provided in both community and hospital setting.
- B Care meeting this definition and provided in a designated unit
- C Care meeting this definition and provided according to a designated program
- D Care in which the principal clinical intent meets this definition

Geriatric Evaluation and Management

An episode of care;

- X provided for a person with complex multi-dimensional medical problems associated with disabilities and psychosocial problems, usually (but not always) an older person and
- X for whom the primary treatment goal is maximising health status and/or optimising living arrangements
- X which is evidenced by:
 - + evaluation and formulation of a management plan for complex medical problems
 - + multidisciplinary assessment and management of functional and psychosocial needs
 - + regular assessments of current management plan working towards negotiated goals within indicative time frames

Inclusions

- A Geriatric evaluation and management provided in both community and hospital settings
- B Evaluation and management of younger adults with clinical problems generally associated with old age
- C Care meeting this definition and provided in a designated unit
- D Care meeting this definition and provided according to a designated program
- E Care in which the principal clinical intent meets this definition

Maintenance Care

An episode of care:

- X provided for a person with a disability who, following assessment or treatment, does not require further complex assessment or stabilisation and
- X for whom the primary treatment goal is the maintenance of function and current health status if possible
- X which is evidenced by:

⁷ Eagar K. (1997) *Defining an Episode of Care: a study of five Case Types*. *Australian Health Review*, Vol 20, No 3, 105-119

- + the provision of health and treatment services and psychosocial support

Types of maintenance care:

- A Maintenance care provided in both community and hospital settings
- B Care and support of a person in an inpatient setting whilst the patient is awaiting transfer to residential care or alternate support services or where there are factors in the home environment (physical, social, psychological) which make discharge to home inappropriate for the person in the short term
- C Ongoing care and support of a person in a residential setting
- D Patients in receipt of care where the sole reason for admitting the person to hospital is that the care that is usually provided in another environment eg at home, in a nursing home, by a relative or with a guardian, is unavailable in the short-term
- E Care and support of a person with a functional impairment for whom there is no multidisciplinary program aimed at improvement of functional capacity
- F Patients classified as Nursing Home Type Patients ie when a patient has been in hospital for a continuous period exceeding 35 days and does not have a current acute care certificate

Transition Care

Transition Care is a new national program. It is defined as:

“Transition Care provides short-term support and active management for older people at the interface of the acute/sub-acute and residential aged care sectors. It is goal oriented, time-limited and targets older people at the conclusion of a hospital episode who require more time and support in a non hospital environment to complete their restorative process, optimise their functional capacity and finalise and access their longer term care arrangements.

The potential for further recovery will vary according to the individual. Therefore, the services provided will vary from individual to individual, ranging from those that further improve physical, cognitive and psycho-social functioning thereby improving the person’s capacity for independent living, to those that actively maintain the individual’s functioning while assisting them and their family and carers make appropriate long-term care arrangements

An outcome of transition care is that inappropriate extended hospital lengths of stay and premature admission to residential aged care are minimised. However, it should be stressed that transition care’s primary function is therapeutic, rather than administrative.

Depending on their assessed level of need, transition care will offer eligible older people several or all of the following:

- nursing support;
- low intensity therapy or rehabilitation (such as physiotherapy, occupational therapy and social work) to maintain physical and cognitive functioning and to facilitate improved capacity in activities of daily living;
- personal care;
- medical support such as GP oversight; and,
- case management including establishing community supports and services and where required, identification of residential care options.

To access transition care, a person must first be approved for Transition Care by an Aged Care Assessment Team (ACAT). Transition care can be delivered in either a residential or community setting. After a hospital episode, a person can directly enter transition care delivered in a community setting – there is no need to receive transition care in a residential setting first. All transition care clients will have been discharged from hospital and hence can access the Pharmaceutical Benefits Scheme and the Medicare Benefits Schedule.

A person is eligible to receive flexible care in the form of transition care only if:

- The person has completed his/her acute and sub-acute episodes of care, is medically stable and ready for discharge at assessment, and discharged from hospital upon entry to transition care,
- The person would be ACAT assessed if he/she applied for residential aged care as eligible to receive permanent residential aged care at least at the low level of care,
- The person has been assessed by the ACAT as being able to benefit from a period of care in a non-hospital environment to:
 - access low intensity therapy and support such as physiotherapy, occupational therapy and social work as part of an ongoing but slower recovery process; and
 - assess their circumstances, together with their carers and families, and identify and consider the care options available to them; and
 - explore their preferred aged care option, including whether they can return to the community, and
- The person wishes to access transition care”.⁸

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It is important to note that these definitions are based on the patient, the care goal and the care provided, not on the medical speciality of the treating doctor. A geriatrician, for example, may provide care to patients classified as any of these care types. Likewise, a rehabilitation physician may provide care to patients of any care type. This includes patients who have completed their rehabilitation program and, having been recorded as a ‘type change’, begin a new episode (eg, as a maintenance episode).

⁸ Australian Government Department of Health and Ageing (2005) *Transition Care Program Guidelines*, final draft, May 2005

Attachment 2

NSW age/sex weights for Rehabilitation and Extended Care

Table 19 NSW age/sex weights for Rehabilitation and Extended Care

Age Group	Rehabilitation		GEM and Maintenance		Psychogeriatrics		All	
	Male	Female	Male	Female	Male	Female	Male	Female
00-04	0.02	0.02	-	-	-	-	0.02	0.02
05-09	0.02	0.02	-	-	-	-	0.02	0.02
10-14	0.02	0.02	-	-	-	-	0.02	0.02
15-19	0.15	0.04	-	0.12	-	-	0.08	0.07
20-24	0.33	0.08	0.18	0.22	-	-	0.22	0.13
25-29	0.22	0.06	0.21	0.25	-	-	0.18	0.13
30-34	0.29	0.07	0.23	0.28	-	-	0.24	0.17
35-39	0.35	0.09	0.24	0.29	-	-	0.29	0.21
40-44	0.52	0.13	0.28	0.34	-	-	0.38	0.25
45-49	0.37	0.37	0.35	0.43	-	-	0.42	0.49
50-54	0.58	0.58	0.57	0.70	0.30	0.56	0.63	0.75
55-59	0.78	0.78	0.63	0.77	0.61	1.14	0.96	1.04
60-64	1.61	1.61	1.07	1.31	1.85	3.43	1.69	1.74
65-69	2.58	2.58	1.92	2.35	3.28	6.10	2.79	2.88
70-74	4.20	5.13	3.35	4.10	4.98	9.25	4.42	4.99
75-79	6.33	7.74	6.38	7.79	6.93	12.86	6.39	7.44
80-84	9.91	12.11	10.85	13.27	8.93	16.58	9.87	11.51
85+	13.76	16.82	18.59	22.72	11.70	21.74	14.00	16.63

Source: NSW RDF Technical Papers.

Attachment 3

Rehabilitation Patient Flows

Table 20 Rehabilitation patient flows 2005/06

Treating hospital	RHH	Huon	New Norfolk	Esperance	LGH	Deloraine	Georgetown	King Island	Burnie	Mersey	Smithton	Victorian	Total	% Self sufficiency
Place of residence:														
Northern														
Break ODay	0	0	0	0	3	0	0	0	0	0	0	0	5	
Dorset	0	0	0	0	1	0	0	0	0	0	0	1	2	
Flinders	0	0	0	0	0	0	0	0	0	0	0	2	2	
George Town	5	0	0	0	12	0	3	0	0	0	0	0	20	
King Island	0	0	0	0	0	0	0	3	1	0	0	0	4	
Launceston	3	0	0	0	89	0	0	0	0	0	0	1	93	
Meander Valley	2	0	0	0	15	7	0	0	0	0	0	0	24	
Northern Midlands	0	0	0	0	25	1	0	0	0	0	0	1	27	
West Tamar	3	0	0	0	25	0	0	0	0	0	0	0	28	
Northern Total	13	0	0	0	170	8	3	3	1	0	0	5	205	
% hospital total	2.2%	0.0%	0.0%	0.0%	92.9%	100.0%	100.0%	100.0%	1.1%	0.0%	0.0%	23.8%	22.3%	89.8%
North West														
Burnie	1	0	0	0	1	0	0	0	25	0	0	0	27	
Central Coast	4	0	0	0	5	0	0	0	18	0	1	2	30	
Circular Head	0	0	0	0	0	0	0	0	6	0	5	0	11	
Devonport	6	0	0	0	2	0	0	0	12	2	0	0	22	
Kentish	0	0	0	0	2	0	0	0	2	0	0	0	4	
Latrobe	1	0	0	0	1	0	0	0	2	1	0	1	6	
Waratah Wynyard	1	0	0	0	1	0	0	0	22	0	0	1	25	
West Coast	3	0	0	0	0	0	0	0	1	0	0	1	6	
NW total	16	0	0	0	12	0	0	0	88	3	6	5	131	74.0%
% hospital total	2.7%	0.0%	0.0%	0.0%	6.6%	0.0%	0.0%	0.0%	98.9%	100.0%	100.0%	23.8%	14.2%	
Southern														
Brighton	28	0	0	0	0	0	0	0	0	0	0	0	28	
Central Highlands	1	0	0	0	0	0	0	0	0	0	0	0	2	
Clarence	96	0	0	0	0	0	0	0	0	0	0	0	96	
Derwent Valley	12	0	4	0	0	0	0	0	0	0	0	0	16	
Glamorgan Spring Bay	5	0	0	0	0	0	0	0	0	0	0	0	5	
Glenorchy	163	0	0	0	0	0	0	0	0	0	0	3	166	
Hobart	155	0	0	0	1	0	0	0	0	0	0	4	160	
Huon Valley	20	2	0	2	0	0	0	0	0	0	0	2	26	
Kingborough	54	0	0	0	0	0	0	0	0	0	0	0	54	
Sorell	20	0	0	0	0	0	0	0	0	0	0	0	20	
Southern Midlands	7	0	0	0	0	0	0	0	0	0	0	0	7	
Tasman	2	0	0	0	0	0	0	0	0	0	0	2	5	
Southern Total	563	2	4	2	1	0	0	0	0	0	0	11	585	
% hospital total	95.1%	100.0%	100.0%	100.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	52.4%	63.5%	97.6%
TASMANIA Total	592	2	4	2	183	8	3	3	89	3	6	21	921	97.2%

Attachment 4

Supplementary data on rehabilitation utilisation in Tasmania 2005-2006

Table 21 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days RHH (all Care Types)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Amputation	19	27.6	190	335	17.6
Arthritis	24	16.6	240	159	6.6
Arthritis after care	4	31.6	40	87	21.6
Chronic Pain	37	20.2	370	376	10.2
Complex joint replacement	27	19.8	270	265	9.8
Complex Orthopaedics	58	21.6	580	673	11.6
Fractured NOF	18	21.0	180	198	11.0
Joint replacement	22	16.8	220	150	6.8
Complex medical	214	22.8	2140	2739	12.8
Multi trauma and other	37	25.6	370	577	15.6
Neurological conditions	62	22.0	620	743	12.0
Other orthopaedic	32	19.3	320	299	9.3
Rehabilitation Other	572	42.3	5720	18475	32.3
Spinal cord dysfunction	26	37.7	260	721	27.7
Stroke	78	22.0	780	940	12.0
Traumatic brain dysfunction	71	21.9	710	847	11.9
Grand Total	1301	31.2	13010	27582	21.2
Equivalent beds at 90% occupancy			40	84	

Table 22 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days RHH (Acute Care Type only)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Amputation	19	27.6	190	335	17.6
Arthritis	24	16.6	240	159	6.6
Arthritis after care	4	31.6	40	87	21.6
Chronic Pain	37	20.2	370	376	10.2
Complex joint replacement	27	19.8	270	265	9.8
Complex Orthopaedics	58	21.6	580	673	11.6
Fractured NOF	18	21.0	180	198	11.0
Joint replacement	22	16.8	220	150	6.8
Complex medical	213	22.7	2130	2708	12.7
Multi trauma and other	37	25.6	370	577	15.6
Neurological conditions	62	22.0	620	743	12.0
Other orthopaedic	32	19.3	320	299	9.3
Rehabilitation Other	9	32.4	90	201	22.4
Spinal cord dysfunction	21	32.6	210	474	22.6
Stroke	78	22.0	780	940	12.0

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Traumatic brain dysfunction	71	21.9	710	847	11.9
Grand Total	732	22.3	7320	9031	12.3
Equivalent beds at 90% occupancy			22	27	

Table 23 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days LGH (all Care Types)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Amputation	3	25.3	30	73	24.3
Arthritis	8	20.5	80	156	19.5
Chronic Pain	19	26.6	190	486	25.6
Complex joint replacement	30	33.6	300	979	32.6
Complex Orthopaedics	50	25.5	500	1227	24.5
Fractured NOF	8	19.5	80	148	18.5
Joint replacement	23	14.0	230	298	13.0
Complex medical	236	21.5	2360	4835	20.5
Multi trauma and other	16	24.1	160	370	23.1
Neurological conditions	71	26.0	710	1772	25.0
Other orthopaedic	18	23.3	180	401	22.3
Rehabilitation Other	266	35.6	2660	9213	34.6
Spinal cord dysfunction	17	42.6	170	707	41.6
Stroke	86	25.0	860	2062	24.0
Traumatic brain dysfunction	3	27.8	30	81	26.8
Grand Total	854	27.7	8540	22808	26.7
Equivalent beds at 90% occupancy			26	69	

Table 24 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days LGH (Acute Care Type only)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Amputation	3	25.3	30	73	24.3
Arthritis	7	21.0	70	140	20.0
Chronic Pain	19	26.6	190	486	25.6
Complex joint replacement	30	33.6	300	979	32.6
Complex Orthopaedics	50	25.5	500	1227	24.5
Fractured NOF	8	19.5	80	148	18.5
Joint replacement	23	14.0	230	298	13.0
Complex medical	233	21.5	2330	4784	20.5
Multi trauma and other	16	24.1	160	370	23.1
Neurological conditions	69	25.3	690	1679	24.3
Other orthopaedic	18	23.3	180	401	22.3
Rehabilitation Other	23	40.1	230	899	39.1
Spinal cord dysfunction	13	37.1	130	470	36.1
Stroke	86	25.0	860	2062	24.0
Traumatic brain dysfunction	3	27.8	30	81	26.8
Grand Total	601	24.5	6010	14098	23.5

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Equivalent beds at 90% occupancy			18	43	

Table 25 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days NWRH Burnie (all Care Types)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Arthritis	7	24.9	70	167	23.9
Arthritis after care	1	11.0	10	10	10.0
Chronic Pain	10	25.6	100	246	24.6
Complex joint replacement	16	22.7	160	347	21.7
Complex Orthopaedics	14	28.3	140	383	27.3
Fractured NOF	4	16.4	40	61	15.4
Joint replacement	16	18.2	160	275	17.2
Complex medical	99	21.7	990	2052	20.7
Multi trauma and other	10	25.3	100	243	24.3
Neurological conditions	28	26.8	280	722	25.8
Other orthopaedic	7	15.4	70	101	14.4
Rehabilitation Other	76	32.6	760	2399	31.6
Spinal cord dysfunction	4	44.3	40	173	43.3
Stroke	26	25.0	260	625	24.0
Grand Total	318	25.5	3180	7805	24.5
Equivalent beds at 90% occupancy			10	24	

Table 26 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days NWRH Burnie (Acute Care Type only)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Arthritis	7	24.9	70	167	23.9
Arthritis after care	1	11.0	10	10	10.0
Chronic Pain	10	25.6	100	246	24.6
Complex joint replacement	16	22.7	160	347	21.7
Complex Orthopaedics	14	28.3	140	383	27.3
Fractured NOF	4	16.4	40	61	15.4
Joint replacement	16	18.2	160	275	17.2
Complex medical	99	21.7	990	2052	20.7
Multi trauma and other	10	25.3	100	243	24.3
Neurological conditions	28	26.8	280	722	25.8
Other orthopaedic	7	15.4	70	101	14.4
Spinal cord dysfunction	2	52.8	20	104	51.8
Stroke	26	25.0	260	625	24.0
Grand Total	240	23.2	2400	5337	22.2
Equivalent beds at 90% occupancy			7	16	

Table 27 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days NWRH Mersey (all Care Types)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Amputation	7	29.0	70	196	28.0

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Arthritis	4	20.0	40	76	19.0
Chronic Pain	6	18.3	60	104	17.3
Complex joint replacement	16	24.6	160	378	23.6
Complex Orthopaedics	10	23.9	100	229	22.9
Fractured NOF	5	15.2	50	71	14.2
Joint replacement	23	18.2	230	396	17.2
Complex medical	113	22.1	1130	2380	21.1
Multi trauma and other	5	28.5	50	137	27.5
Neurological conditions	14	15.8	140	208	14.8
Other orthopaedic	11	20.5	110	215	19.5
Rehabilitation Other	32	25.3	320	778	24.3
Spinal cord dysfunction	2	26.6	20	51	25.6
Stroke	37	22.2	370	785	21.2
Traumatic brain dysfunction	2	16.4	20	31	15.4
Grand Total	287	22.0	2870	6035	21.0
Equivalent beds at 90% occupancy			9	18	

Table 28 *Bed days in 'rehabilitation or recuperative care' 2005-2006 patients with a length of stay greater than 10 days NWRH Mersey (all Care Types)*

Functional loss grouping	Admissions	Total LOS	Acute days	Rehab days	Rehab ALOS
Amputation	7	29.0	70	196	28.0
Arthritis	4	20.0	40	76	19.0
Chronic Pain	6	18.3	60	104	17.3
Complex joint replacement	16	24.6	160	378	23.6
Complex Orthopaedics	10	23.9	100	229	22.9
Fractured NOF	5	15.2	50	71	14.2
Joint replacement	23	18.2	230	396	17.2
Complex medical	112	22.1	1120	2358	21.1
Multi trauma and other	5	28.5	50	137	27.5
Neurological conditions	14	15.8	140	208	14.8
Other orthopaedic	11	20.5	110	215	19.5
Rehabilitation Other	11	21.3	110	223	20.3
Spinal cord dysfunction	2	26.6	20	51	25.6
Stroke	37	22.2	370	785	21.2
Traumatic brain dysfunction	2	16.4	20	31	15.4
Grand Total	265	21.6	2650	5458	20.6
Equivalent beds at 90% occupancy			7	17	

Attachment 5

Rehabilitation bed projections

Table 29 Projected separations 2004 to 2022

Place of Treatment	Separations			
	2004-05	2011-12	2016-17	2021-22
SUB-ACUTE - REHAB ESRG - Tasmanian Hospitals				
Public overnight				
Royal Hobart	596	800	1025	1305
Huon	2	4	6	8
New Norfolk	6	8	9	11
Ouse	1	3	5	8
Esperance MPC	2	3	4	5
Tasman	1	1	2	3
Launceston General	187	328	479	665
St Helens	2	4	6	8
St Marys	1	3	6	10
Deloraine	12	24	38	59
Georgetown	3	4	5	7
King Island	3	4	5	7
Rosebery	1	2	2	3
NWRH - Burnie	91	177	263	364
NWRH - Mersey	8	18	23	30
Smithton	6	10	15	20
Public Total	922	1394	1895	2514
Private Total	380	506	599	712
Grand Total	1302	1899	2495	3227

Source: Harges projections for Tasmania, 2006

Table 30 Projected beddays 2004 to 2022

Place of Treatment	Beddays			
	2004-05	2011-12	2016-17	2021-22
SUB-ACUTE - REHAB ESRG - Tasmanian Hospitals				
Public overnight				
Royal Hobart	14397	20996	26991	34238
Huon	80	83	118	159
New Norfolk	161	205	249	308
Ouse	18	69	117	164
Esperance MPC	14	11	15	19
Tasman	17	25	36	51
Launceston General	5326	9361	13484	18401
St Helens	46	137	209	295

Place of Treatment	Beddays			
	2004-05	2011-12	2016-17	2021-22
St Marys	8	30	56	89
Deloraine	336	599	926	1380
Georgetown	108	137	177	233
King Island	12	43	50	55
Rosebery	1	46	70	111
NWRH - Burnie	2233	4271	6343	8705
NWRH - Mersey	118	447	593	776
Smithton	85	164	236	333
Public Total	22960	36623	49669	65316
Private Total	7770	11563	13447	15602
Grand Total	30730	48185	63116	80918

Source: Harges projections for Tasmania, 2006

Table 31 Projected bed requirements 2004 to 2022

Place of Treatment	Beds @ 90%			
	2004-05	2011-12	2016-17	2021-22
Public overnight				
Royal Hobart	44	64	82	104
Huon	0	0	0	0
New Norfolk	0	0	1	1
Ouse	0	0	0	0
Esperance MPC	0	0	0	0
Tasman	0	0	0	0
Launceston General	16	28	41	56
St Helens	0	0	0	1
St Marys	0	0	0	0
Deloraine	1	2	3	4
Georgetown	0	0	1	1
King Island	0	0	0	0
Rosebery	0	0	0	0
NWRH - Burnie	7	13	19	26
NWRH - Mersey	0	2	2	2
Smithton	0	0	1	1
Public Total	70	111	151	199
Private Total	24	35	41	47
Grand Total	93	147	192	247

Source: Harges projections for Tasmania, 2006

Attachment 6

Supplementary data on how rehabilitation in Tasmania compares with other jurisdictions

Table 32 *Hospital separations, by care type and hospital sector, states and territories (2004–05)*

Care type	NSW	Vic	Qld	WA	SA	Tas	ACT	NT	Total
Separations									
Acute care	1,289,900	1,176,145	697,226	372,205	348,989	83,670	60,838	74,115	4,103,088
Rehabilitation	22,572	14,659	17,233	4,103	4,068	910	1,246	722	65,513
Geriatric evaluation and management	878	10,598	443	949	5	19	9	49	12,950
Maintenance care	7,107	3,638	5,677	1,949	1,410	630	252	135	20,798
Total	1,320,457	1,205,040	720,579	379,206	354,472	85,229	62,345	75,021	4,202,349
Average length of stay									
Acute care	3.70	2.81	2.97	3.12	3.24	3.81	3.10	2.77	3.21
Rehabilitation	20.49	23.30	10.06	26.80	26.05	26.55	12.56	5.01	18.88
Geriatric evaluation and management	12.21	26.30	18.04	11.69	0.00	4.89	0.00	20.98	23.93
Maintenance care	37.49	36.20	66.02	49.59	120.97	38.65	34.93	27.01	51.78
Total	4.15	3.41	3.59	3.67	4.00	4.26	3.46	2.87	3.76
As percentage of total separations									
Acute care	97.69%	97.60%	96.76%	98.15%	98.45%	98.17%	97.58%	98.79%	97.64%
Rehabilitation	1.71%	1.22%	2.39%	1.08%	1.15%	1.07%	2.00%	0.96%	1.56%
Geriatric evaluation and management	0.07%	0.88%	0.06%	0.25%	0.00%	0.02%	0.01%	0.07%	0.31%
Maintenance care	0.54%	0.30%	0.79%	0.51%	0.40%	0.74%	0.40%	0.18%	0.49%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
As percentage of total beddays									
Acute care	86.57%	81.47%	78.81%	84.23%	80.34%	86.77%	88.51%	96.12%	83.37%
Rehabilitation	8.40%	8.41%	6.61%	7.96%	7.53%	6.58%	7.36%	1.69%	7.84%
Geriatric evaluation and management	0.19%	6.87%	0.30%	0.80%	0.00%	0.03%	0.00%	0.48%	1.96%
Maintenance care	4.84%	3.24%	14.28%	7.00%	12.13%	6.63%	4.14%	1.71%	6.83%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: AIHW (2006).

Attachment 7

AFRM staffing standards

Table 33 AFRM inpatient staff to patient ratios for 10 patient

Patient type	Nurses	PTs	OTs	SPs	SWs	ClinPs	NeuroPs	RPhys
Amputation	11.75*	1.5	1		0.6	0.5		0.4
Debility**	11.75*	1.25	1	0	1	0.2	0	0.4
Neurology	11.75*	1.5	1.5	1.5	1.25	0.5	0.5	0.625
Orthopaedic	11.75*	1.25	0.8		0.8	0.2		0.4
Spinal Injury	11.75*	2	2	0.25	1.2	0.5		0.625
TBI	11.75*	1.5	1.66	1.5	1.2	0.7	0.5	0.625

*= incl NUM and there should be added a 0.5 CNC and 0.5 Nurse Educator

**= *Debility* is a health and recent illness related functional limitation not assignable to any particular disease or condition

Table 34 AFRM standards for ambulatory rehabilitation services

Patient type	STAFF FOR EACH 10 PATIENTS								
	Nurses	PTs	OTs	SPs	SWs	Clin Ps	NeuroPs	R Phys	Prosthetic t/ Orthotist
Amputation	0.3	0.7	0.5	0	0.2	0.1	0	0.1	1
Neurology	0.7	0.9	1	0.75	0.4	0.5	0.5	0.2	0.2
Orthopaedic	0.3	0.7	0.3	0	0.2	0.2	0	0.1	0.2
Spinal Injury	0.7	0.9	1	0	0.4	0.5	0	0.2	0.2
TBI	0.7	0.9	1.5	1	0.5	0.5	0.5	0.2	0

PTs = Physiotherapists Ots = Occupational therapists SPs = Speech Pathologists SWs = Social Workers

ClinPs = Clinical Psychologists NeuroPs= Neuropsychologists RPhys = Consultant Physician in Rehabilitation Physician

NB.: *Other Health Professionals should be available as required*